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**TANGANYIKA**

**ANNUAL REPORT**  
**on**  
**DEVELOPMENT**  
**1955**

**Compiled by**  
**The Member for Communications, Works and**  
**Development Planning**

1956  
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## TANGANYIKA

### Report on Development, 1955

#### INTRODUCTION

In introducing the Annual Report on Development for 1955 apologies should first be rendered for the delay in production, which has been mainly due to the difficulty in gathering together all the necessary statistics. If these rather indigestible figures are studied as a whole it will be appreciated that in nearly every sphere they will reveal a constant and even progress in the economic status of the Territory. In nearly every case they show increases both in production and consumption on previous years, and indicate the continued expenditure both in Government and non-governmental spheres on productive development.

By and large 1955 was a good year. Harvests and foodcrops were well above average, while cash crop records were again established in the production of cotton, cashew nuts and tea. The coffee harvest was a good one and production of sisal was very well maintained. Tobacco planting continued to grow in popularity, and new areas were planted with this valuable cash crop for the first time. In fact the total tonnage of agricultural exports was 28 per cent higher than in the previous year. This was due not only to the bountiful harvest, but also to the increased acreages under cultivation.

The mineral wealth of the Territory continued to be exploited steadily, and there was increased activity in the field of prospecting for new sources of mineral wealth. Trade in general continued to expand particularly in some of the upcountry towns, and there was a further surge of building development both residential and commercial.

Capital expenditure during the year on communications within the Territory has remained remarkably high, and totalled approximately £6m. Of this amount over £3½m. was spent on improving the railway system which, during the year, proved that its capacity was fully adequate for the needs of the Territory, although difficulties occurred in respect of transportation on Lake Victoria. Dar es Salaam port dealt with a greater tonnage than ever before and the total of imports and exports fell only a few tons short of the million mark. Record tonnages were also dealt with at Tanga. The new harbour works in Dar es Salaam went ahead well, and completion is expected by August, 1956. There was an expenditure of some £1½m. on improving the road system throughout the Territory, the most notable projects of which include the virtual completion of the new road from Morogoro to Iringa and the bitumenization of a 50-mile sector in the Great North Road. In addition a great deal of work was accomplished towards providing the major centres with water supplies capable of dealing with foreseeable requirements. Substantial progress was made on the £1,500,000 scheme for the new supply for Dar es Salaam, and a number of small centres received a piped supply.

In general it will be seen that 1955 was a year of steady if not spectacular achievement in the field of development with a continued emphasis on projects tending to lead to an increase of the national wealth.



# I.—GENERAL FACTORS IN ECONOMIC DEVELOPMENT

## COMMUNICATIONS

Within Tanganyika, Government is responsible for Roads and Aerodromes and the East Africa High Commission controls Railways and Harbours, Posts and Telecommunications, and Air control and Radio Services. During the period under review the current programme of development came to an end and a new plan known as the 1955-60 plan is ready so that no interruption to development within the territory will occur.

### *Roads*

Progress is being made on the programme of road construction and improvement by the provision, during the next three to four years, of all-weather trunk roads throughout the territory. Investigations and planning arrangements for the eventual link between the road systems of Lake and Western Provinces with that of the rest of the territory continue. In Central Province an appreciable amount of construction has been completed on the East-West link and although some sections are still in the early stages of improvement, the two outstanding items of this link which are receiving active consideration are the crossing of the Wembere and the connection of the eastern end of the link with the Eastern Province road system in the Kidete-Mvomero area. Construction also continues within the limitation of funds available and present resources on the far west link between the southern and northern borders of the territory, and on its eastern counterpart in the vicinity of the Rufiji River near Ndundu. An extensive bridge replacement programme has been started on the Great North Road and bituminization from Arusha southwards; investigations have been completed for the Mwanza-Biharamulo link which it is hoped to start in the next financial year. The latter when completed will provide an outlet eastward for the Bukoba District, and in this connection bituminization has been commenced south of Bukoba in the direction of Muhutwe. Consideration continues to be given to the question of feeder roads to development areas. There is sufficient flexibility in the overall plan to allow for unforeseen developments.

2. The steady improvement of ferries continues in order that they may be brought up to the standard required by the present traffic intensities and those expected in the next five years.

3. The programme of major road construction to the surveys and designs of consulting engineers have been completed. The last section, between Dar es Salaam and Morogoro was opened to traffic early in the year. All roads supervised by the consultants and built by their contractors have been taken over by the Public Works Department for maintenance purposes.

4. The total mileage of main roads (territorial and local), township and district roads is now 18,757, of this total the roads maintained by the Public Works Department account for 7,040 miles, and district roads maintained by the Provincial Administration 11,103 miles. The Public Works Department with one or two exceptions also maintain the roads in townships on behalf of the Township Authorities. The mileage of bituminous-surfaced roads in the territory outside townships now amounts to 300.

Surveys for major works have been completed, principally between Mwanza and Biharamulo, the Mporotos deviation of the Great North Road near Mbeya

and the possibility of a connection to Tukuyu, and the Tanga-Kenya border road realignment. Detailed surveys and investigations are proceeding on the East-West link, the Eastern trunk road south of the Rufiji, and on the Korogwe-Moshi road.

### *Maintenance and Minor Improvements*

Maintenance funds have been used for routine maintenance and minor improvements. In order to arrive at a closer appreciation of the problems concerned with the road network, a basic sufficiency survey was carried out to examine the condition of the existing system of territorial and local main roads. The result of the survey indicated that a firm policy for overall improvement could be laid down. It was found that by using certain well-tried methods of controlled routine maintenance and minor improvements, and the judicious use of funds from this allocation, considerable overall improvements could be affected over the next three years, in order to arrive at a standard road formation, sound drainage, improved alignments, and all-weather properties. The improvement beyond an earth standard to obtain first gravel and then bitumen surfaces, will be dependent on traffic densities of the order of 100 and 200 vehicles each day respectively. It is thought that this is a suitable provision for the stage development of carriageways, and is in keeping with traffic needs and the developing economy of an under-developed territory. The provision of structures such as culverts and bridges, major realignments and extensive earth works, in cuttings and embankments, will be financed from development funds. The labour shortage in many parts of the territory presents an acute problem and it is essential to use labour on those routine tasks that cannot be effectively performed by machines, particularly on territorial main roads. Unfortunately the financial provision for additional equipment does not enable this policy to be implemented as effectively as it might be and for its eventual extension to local main roads in the foreseeable future. Nevertheless, road equipment is being used as effectively as possible on the territorial main roads and is operated in concentrations to get maximum control and efficiency. The inadequacy of supervisory staff, both in quality and in numbers, is being gradually overcome by field training and by closely defining the limits of responsibility of each grade.

Traffic densities will determine the point when bitumenization is warranted. It is significant that in respect of upkeep costs those of maintaining a gravel road to full standard are increasing and are not far short of the amount required to maintain bitumen surfacing. In Dar es Salaam the Motor Transport Company again recorded an increase in mileage to passengers carried.

The figures are:—

|                        | 1952      | 1953      | 1954      | 1955       |
|------------------------|-----------|-----------|-----------|------------|
| Number of Buses ...    | 24        | 30        | 30        | 37         |
| Mileage ...            | 807,587   | 962,486   | 1,071,817 | 1,308,511  |
| Passengers carried ... | 7,081,750 | 8,287,901 | 8,809,203 | 10,587,591 |

A town bus service is to be started in Tanga.

The increase in long distance passenger transport during the year is particularly noticeable, and it is possible to travel comfortably by passenger coaches from Dar es Salaam to the Northern and Tanga Provinces, and to Kenya by more than one route.

For the rest, road transport is in the hands of a very large number of operators many of whom run only one or two vehicles and operate with very low overhead costs.



# NUMBER OF MOTOR VEHICLES OPERATING ON TANGANYIKA HIGHWAYS

|      | Lorries and<br>Buses | Other<br>Vehicles | Total  |
|------|----------------------|-------------------|--------|
| 1938 | 1,731                | 3,444             | 5,175  |
| 1948 | 5,648                | 5,697             | 11,345 |
| 1953 | 7,415                | 12,948            | 20,363 |
| 1954 | 7,053                | 17,146            | 24,199 |
| 1955 | 7,881                | 17,911            | 25,792 |

The number of buses now totals 957.

Large importations of cars continue, and the motor industry flourishes.

The Road Services of the East African Railways and Harbours Administration operate over 1,631 route miles. During 1955, the vehicle fleet was supplemented by the addition of three 10-ton lorries purchased locally. Orders have also been placed for six 1,500-gallon tankers and delivery was awaited at the end of the year.

Operations were generally satisfactory during the year, although road conditions were at times rough.

It was necessary to hire private transport from November onwards, to move the heavy maize crop in the Iringa District. This was done at the request of Government and the Grain Storage Department bore the out-of-pocket costs of this hiring in cases where it was not possible for a return load to be obtained. By the end of the year 5,444 tons had been moved from the Iringa District.

New Road Service Depots at Morogoro and Mbeya were completed during the year.

The Mikumi-Ruaha River section of the Morogoro-Iringa Road was opened on the 10th December. On the advice of Government no services were operated thereon up to the end of the year.

## Railways

Expenditure authorized on Tanganyika Railways since amalgamation in 1948 is as follows:—

|                           | Expenditure<br>1955 | Expenditure since<br>amalgamation in<br>1948 | Balance already<br>earmarked for sub-<br>sequent years |
|---------------------------|---------------------|----------------------------------------------|--------------------------------------------------------|
|                           | £                   | £                                            | £                                                      |
| New Works                 | 2,734,225           | 10,228,698                                   | 2,361,010                                              |
| Renewals                  | 763,042             | 1,462,271                                    | 774,829                                                |
|                           | 3,497,267           | 11,690,969                                   | 3,135,839                                              |
| Southern Province Railway | 116,767             | 4,017,856                                    | 263,144                                                |

Stone ballasting on both the Central and Tanga Lines progressed during the year and the strengthening of bridges between Morogoro and Tabora continued.

The regrading of the Tanga Line progressed satisfactorily.

Considerable progress was made in the construction of housing for all races.

The detailed survey pegging out of the alignment of a proposed branch line from Kilosa to Msolwa in connection with Messrs. Hulett's sugar scheme was well advanced by the end of the year.

The capacity of the Central Line was considerably increased by the addition of 14 new locomotives, 59 units of coaching stock and 669 units of goods stock. This so increased capacity that by the end of the year the Central Line was ahead of demands with capacity to spare.

During the year traffic on the Central Line and the Road and Lake Services in Tanganyika recorded appreciable increases.

First and second class passengers were slightly below 1954, but third class passengers increased by eleven per cent. The approximate total number of journeys made was 1,435,000. Goods tonnage increased from 731,000 in 1954 to 885,000 in 1955, and total ton miles increased by nineteen per cent to 300,000,000.

Except for slight difficulty at Dodoma and Ngerengere with water supplies during the year, no undue obstacles were experienced in this respect.

The conversion of all locomotives to oil burning was completed and a reliable supply of water was brought to Msagali Station from the Sagara Springs near Kongwa.

The Southern Province Railway carried very little traffic during the year and was breached by serious washaways from the 3rd February to the 10th May.

Very serious washaways occurred on the Central Line in December between Dodoma and Morogoro, closing the line for six days.

Detailed results were as follows:—

#### CENTRAL LINE, RAILWAY ROAD SERVICES AND TANGANYIKA STEAMSHIP SERVICES

|      | Number of<br>Passenger<br>Journeys | Weight of Goods Carried |                       | Ton Mileage of Traffic  |                       |
|------|------------------------------------|-------------------------|-----------------------|-------------------------|-----------------------|
|      |                                    | Public and Departmental |                       | Public and Departmental |                       |
|      |                                    | Tons                    | Index<br>(1948 = 100) | Ton-Mileage             | Index<br>(1948 = 100) |
| 1948 | 1,294,000                          | 382,000                 | 100                   | 128,500,000             | 100                   |
| 1949 | 1,438,000                          | 435,000                 | 114                   | 146,000,000             | 114                   |
| 1950 | 1,237,000                          | 602,000                 | 157                   | 177,000,000             | 138                   |
| 1951 | 1,335,000                          | 586,000                 | 153                   | 186,500,000             | 145                   |
| 1952 | 1,352,000                          | 642,000                 | 162                   | 220,500,000             | 172                   |
| 1953 | 1,304,000                          | 655,000                 | 172                   | 229,500,000             | 176                   |
| 1954 | 1,321,000                          | 731,000                 | 190                   | 250,960,000             | 195                   |
| 1955 | 1,435,000                          | 885,000                 | 232                   | 300,500,000             | 232                   |

#### TANGA LINE

|      | Number of<br>Passenger<br>Journeys | Weight of Goods Carried |                       |                                         |
|------|------------------------------------|-------------------------|-----------------------|-----------------------------------------|
|      |                                    | Public and Departmental |                       |                                         |
|      |                                    | Tons                    | Index<br>(1948 = 100) |                                         |
| 1948 | 905,000                            | 160,000                 | 100                   | } 1951-1955 figures are estimates only. |
| 1949 | 1,046,000                          | 170,000                 | 106                   |                                         |
| 1950 | 1,023,000                          | 193,000                 | 120                   |                                         |
| 1951 | 1,199,000                          | 184,000                 | 122                   |                                         |
| 1952 | 1,078,000                          | —                       | 121                   |                                         |
| 1953 | 903,000                            | 228,025                 | 142                   |                                         |
| 1954 | 733,000                            | 257,981                 | 161                   |                                         |
| 1955 | 627,000                            | 348,000                 | 217                   |                                         |

#### SOUTHERN PROVINCE LINE

|                          | Number of<br>Passenger<br>Journeys | Weight of Goods Carried |
|--------------------------|------------------------------------|-------------------------|
|                          |                                    | Public and Departmental |
| 1954 2nd six months only | 17,500                             | 23,000                  |
| 1955 ... ..              | 30,700                             | 92,500                  |



On Lake Victoria capacity was generally inadequate for all traffic offering during the year. Much of it was, however, cargo imported through Dar es Salaam in evasion of the phasing at Mombasa, and this had to be restricted at times. Plans were made during the year to increase capacity by additional craft and consideration was being given to improve facilities at Mwanza and Bukoba as the year ended.

On Lake Tanganyika services were maintained by the M.V. *Mwanza* supplemented by two special charters of Belgian steamers and lighters. The S.S. *Liamba* recommenced sailings on the 1st December to Mpulungu.

### Harbours

Expenditure authorized on Tanganyika Port Works since amalgamation in 1948 is as follows:—

|                           | Expenditure<br>1955 | Expenditure<br>to date | Balance already<br>earmarked for sub-<br>sequent years |
|---------------------------|---------------------|------------------------|--------------------------------------------------------|
|                           | £                   | £                      | £                                                      |
| New Works                 | 595,050             | 4,084,459              | 1,830,920                                              |
| Renewals                  | 76,116              | 303,162                | 112,327                                                |
|                           | 671,166             | 4,387,621              | 1,943,247                                              |
| Southern Province Railway | 55,008              | 1,348,891              | 509,109                                                |

Work on the construction of the deep water berths at Dar es Salaam progressed favourably during the year. Block laying was completed and sheds, tracks, cranes and ancillaries were well in hand.

The Port of Mtwara operated under capacity throughout the year.

A feature of the year's working was the increase of twenty-two per cent in total cargo handled by Dar es Salaam Port. Both imports and exports show appreciable increases over previous years and by the end of the year Dar es Salaam Port was operating at close on 100,000 tons a month.

Imports into Tanga doubled.

Mtwara figures rose slightly, partly at the expense of Lindi and a decision was taken during the year to reduce the status of the latter to a coaster port in 1957.

Figures were as follows:—

### CARGO HANDLED (HARBOUR TONS) (excluding transhipment Cargo)

| Harbour | Dar es Salaam |         | Tanga   |         | Southern Province |         |         |         |
|---------|---------------|---------|---------|---------|-------------------|---------|---------|---------|
|         | Imports       | Exports | Imports | Exports | Imports           |         | Exports |         |
| 1948    | 333,000       | 171,000 | 70,000  | 136,000 | 89,000            |         | 46,000  |         |
| 1949    | 395,000       | 192,000 | 81,000  | 142,000 | 116,000           |         | 41,000  |         |
| 1950    | 396,000       | 169,000 | 104,000 | 130,000 | 87,000            |         | 34,000  |         |
| 1951    | 425,000       | 218,000 | 93,000  | 138,000 | 56,000            |         | 54,000  |         |
| 1952    | 497,000       | 261,000 | 106,000 | 160,000 | 52,000            |         | 73,000  |         |
|         |               |         |         |         | Imports           | Exports | Imports | Exports |
| 1953    | 530,000       | 240,000 | 99,000  | 177,000 | 25,000            | 54,000  | 15,000  | 14,000  |
| 1954    | 563,000       | 238,000 | 89,000  | 170,000 | 16,000            | 44,000  | 22,000  | 22,000  |
| 1955    | 669,000       | 311,000 | 164,000 | 183,000 | 17,000            | 34,000  | 22,000  | 50,000  |

## NET REGISTERED TONNAGE OF STEAMSHIPS ENTERING TANGANYIKA PORTS

|      |     |     |     |           |
|------|-----|-----|-----|-----------|
| 1938 | ... | ... | ... | 3,070,545 |
| 1948 | ... | ... | ... | 2,287,368 |
| 1949 | ... | ... | ... | 3,160,982 |
| 1950 | ... | ... | ... | 3,424,218 |
| 1951 | ... | ... | ... | 3,491,692 |
| 1952 | ... | ... | ... | 3,629,307 |
| 1953 | ... | ... | ... | 4,304,895 |
| 1954 | ... | ... | ... | 4,907,560 |
| 1955 | ... | ... | ... | 4,980,242 |

Meetings of the Harbours Committee of the Transport Advisory Council, of which the Chairman was the Member for Communications, Works and Development Planning, were held in Dar es Salaam, Mombasa and Tanga during the year.

### *Aerodromes and Air Transport*

The policy which Tanganyika has been pursuing for some years is the construction of International Class "F" aerodromes at all major centres of population, and it can now be said that this programme has been completed with the improvement to this standard of the aerodromes at Kigoma and Njombe and the construction of a new aerodrome at Kilwa. In all Tanganyika has forty-seven aerodromes and landing strips, and the airport in Dar es Salaam, which continues to have more scheduled service movements than any other single airport in East Africa, is up to International Class "C" standard. This aerodrome is capable of use by any aircraft that are likely to come to East Africa in the foreseeable future. The aerodromes at Lindi and Tabora are capable of taking much larger aircraft than normally land on International Class "F" aerodromes.

A second runway has been built at Mtwara and improvement to terminal buildings have been completed at many aerodromes.

There are eleven radio stations in the territory and considerable expansion has taken place in the service provided both by the Directorate of Civil Aviation and the Meteorological Department.

Much interest has been focused on the fire and rescue facilities available at aerodromes, and these are being much improved. Additional crash tender units have been ordered and it is hoped to bring all aerodromes up to an adequate standard within the next few years.

The East African Airways Corporation provide regular and frequent services to all the more important towns within the territory and to the neighbouring countries of Kenya, Uganda and Zanzibar, together with a regular service to the Central African Federation and South Africa. A weekly tourist service between Dar es Salaam and London is operated by British Overseas Airways Corporation throughout the year. Central African Airways provide direct communication between Dar es Salaam and the Central African Federation and between Mbeya and Blantyre, while Sabena operate a route to the Belgian Congo. Caspair Air Charters operate a regular service around Lake Victoria. Adequate chartered services are available on request.

# MAJOR AERODROMES SUMMARY OF AIRCRAFT MOVEMENTS AND PASSENGERS

|      | Aircraft<br>movements | Passengers<br>handled | Loads<br>handled<br>(‘000 kgm.) |
|------|-----------------------|-----------------------|---------------------------------|
| 1938 | 6,862                 | 6,461                 | ...                             |
| 1948 | 19,644                | 100,300               | ...                             |
| 1953 | 17,784                | 156,300               | 2,438                           |
| 1954 | 25,814                | 233,500               | 2,556                           |
| 1955 | 24,900                | 274,600               | 2,184                           |

## Posts and Telecommunications

**Postal Services.**—The East African Posts and Telecommunications Administration provides a full range of mail services, except house to house delivery by postmen. Delivery is effected through the medium of private boxes, private bags and the *poste restante* service. Letters, postcards, printed and commercial papers, samples and newspapers are carried, and there is a parcel service for items up to twenty-two lb. in weight. Facilities are available for registration, cash on delivery, insured and express items, and provision is made for first and second class airmail, air letters and air parcels. The inland postage rate for surface mail is twenty cents for each ounce or part thereof; for inland airmail the charge is thirty cents for the first half ounce and twenty cents for each additional half ounce or part thereof. Mail is carried by railways (including eleven Travelling Post Offices attached to main line trains), railway bus services, other bus and transport services and internal and oversea airlines, operating under contract with the Post Office. Mail is collected and delivered at all Post Offices along the railway line. Stamps, postal orders and stationery can be purchased from the Travelling Post Offices and registered letters posted.

Frequency of despatch depends on the transport services available. Mail circulates by rail between Dar es Salaam and Tabora seven times weekly, Dar es Salaam and Mwanza three times weekly, Dar es Salaam and Moshi three times weekly. There are five services weekly between Dar es Salaam and Tanga. There are railway bus services operating between Morogoro and Korogwe on a daily service, and between Arusha and Dodoma three times weekly. Airmail circulates daily between Dar es Salaam, Zanzibar, Tanga, Mombasa and Nairobi. In all there are eighty-four internal air mail services weekly from Dar es Salaam, serving the more important centres in Tanganyika, and thirty-eight services to Nairobi, Mombasa and Kampala. There are forty-eight external services weekly from Dar es Salaam. Direct services to Mozambique, India, Belgian Congo, Nyasaland, Northern and Southern Rhodesia, South Africa, the United Kingdom and Zanzibar being catered for. Oversea mail to the United Kingdom leaves Dar es Salaam by ship at intervals of about once per week.

There are twelve denominations of postage stamps on sale, ranging from cents 5 to Shs. 20/- and four types of embossed stationery. Additionally there are two types of souvenir folders containing East African stamps.

The following statistics show a steady increase in the number of Post Offices in operation in Tanganyika and the growth in the traffic of the services provided:—

| POST OFFICES |                              |                       |       |
|--------------|------------------------------|-----------------------|-------|
| Year         | Departmental<br>Post Offices | Other<br>Post Offices | Total |
| 1950         | 74                           | 72                    | 146   |
| 1951         | 76                           | 74                    | 150   |
| 1952         | 79                           | 70                    | 149   |
| 1953         | 83                           | 69                    | 152   |
| 1954         | 85                           | 75                    | 160   |
| 1955         | 88                           | 76                    | 164   |



## PRIVATE BOXES

| Year | No. of<br>Private Boxes<br>Available |
|------|--------------------------------------|
| 1950 | 4,106                                |
| 1951 | 5,280                                |
| 1952 | 5,920                                |
| 1953 | 7,296                                |
| 1954 | 8,226                                |
| 1955 | 9,401                                |

## POSTINGS

| Year | Letters    | Parcels |
|------|------------|---------|
| 1950 | 16,730,194 | 192,840 |
| 1951 | 17,815,300 | 216,081 |
| 1952 | 23,420,254 | 237,947 |
| 1953 | 21,875,800 | 233,134 |
| 1954 | 20,656,641 | 248,180 |
| 1955 | 21,117,400 | 285,800 |

*Telephone and Radio Telephone Service.*—The number of exchanges in operation at the end of 1955 was sixty-three, connected by 11,355 miles of wire. During the year the capacity of exchanges throughout the territory was increased by 855 lines, giving a total capacity of 8,130 lines. Seventy-nine public call offices are now in operation and 10,745 stations are connected to the system, as compared with seventy-six public call offices and 9,577 stations at the end of 1954. The increase in the number of telephones during the past six years is illustrated by the following statistics:—

| Year | No. of<br>Telephones |
|------|----------------------|
| 1950 | 4,401                |
| 1951 | 5,653                |
| 1952 | 7,163                |
| 1953 | 8,161                |
| 1954 | 9,577                |
| 1955 | 10,745               |

Radio telephone service is available to most countries of the world.

A radio telephone service to ships in East African coastal waters is available to suitably equipped ships within approximately 400 miles of Mombasa (Kenya).

During 1955 a new trunk route was built between Iringa and Mbeya thereby connecting Mbeya to the East African network. The provision of V.H.F. (Very High Frequency) radio systems between Dar es Salaam–Dodoma, Dodoma–Moshi and Moshi–Nairobi was nearing completion. Six new trunk circuits were provided. During the year trunk calls and local calls exceeded 10 million calls, an increase of twelve per cent over 1954.

A free issue of the telephone directory is made twice yearly.

*Telegraph, Submarine Cable and Wireless Telegraph Service.*—Telegraph facilities are provided throughout Tanganyika by the Posts and Telecommunications Administration by means of morse and teleprinter land line circuits and by radio telegraph circuits. There are 198 centres at which telegrams are accepted. The four largest centres use teleprinters on the main circuits. Radio stations are established at twenty-nine centres; at eighteen of these the stations provide the sole means of telegraph communication. The main telegraph trunk routes, and certain subsidiary routes, are supplemented by radio telegraph channels.

To summarize, the following statistics are quoted:—

**A.—POSTAL SERVICES:**

|     |                                                                   |                                 |            |          |
|-----|-------------------------------------------------------------------|---------------------------------|------------|----------|
| (a) | Number of Postal Establishments Classified according to category: |                                 |            |          |
|     | 164 Post Offices of which 84 provide full range of services.      |                                 |            |          |
| (b) | (1)                                                               | Number of letters handled ...   | 17,133,250 |          |
|     | (2)                                                               | Periodicals (other articles)... | 3,979,353  |          |
|     | (3)                                                               | Declared Value Letters ...      | 4,810      |          |
|     | (4)                                                               | Parcels ...                     | 285,800    |          |
|     |                                                                   |                                 | No.        | Value    |
|     | (5)                                                               | Money Orders (Issued) ...       | 77,075     | £656,644 |
|     |                                                                   | (Paid) ...                      | 49,569     | £417,641 |

**B.—TELEPHONE SERVICES:**

|     |                                                       |              |
|-----|-------------------------------------------------------|--------------|
| (a) | Number of local systems (i.e. Exchanges)              | 63           |
| (b) | Length of single local wires (Exchange to Subscriber) | 17,880 Miles |
| (c) | Length of inter-urban lines (Trunk and Junction)      | 11,355 Miles |
| (d) | Number of Subscribers                                 | 6,106        |
| (e) | Number of Apparatus and Public Call Stations...       | 79           |

**C.—TELEGRAPH SERVICE:**

|     |                                    |         |
|-----|------------------------------------|---------|
| (a) | Number of telegraph establishments | 198     |
| (b) | Number of telegrams: Inland        | 571,991 |
|     | Foreign                            | 71,248  |

**Broadcasting**

An important milestone was passed when the new 20-kilowatt short-wave transmitter in Dar es Salaam came into operation. This provides a territory-wide cover but it will be supplemented later by up-country regional stations. A major development was the extension of the schools broadcasts to over 200 middle and primary schools and teacher training centres in which an estimated 17,000 pupils regularly received radio tuition. The Tanganyika Broadcasting Service has become firmly established and will be managed in due course by a Broadcasting Corporation; a Bill to establish the Corporation was published in December.

**WATER, FUEL AND POWER**

The development of rural water-supplies in Tanganyika continues at an increasing pace. It is planned upon an estimate of annual contributions from Native Authorities of £150,000 per annum.

During 1955 a new impetus was given to dam-construction in Lake Province by provision at the end of 1954 of a highly mobile team of earthmoving equipment mounted on pneumatic tyres. The success in operation of this machinery led to the placing of orders for a further three machines, one of which was received during the course of the year, the remaining two being expected early in 1956. Elsewhere progress was sustained in the building of rural water-supplies from dams, gravity pipe-lines and pumped supplies.

The Water Development and Irrigation Department continued to construct water-supplies at minor settlements but to avoid dispersal of its forces in keeping such supplies running almost all of these have been handed over to the Public Works Department for maintenance. At the same time, however, there remains a large number of village and cattle-watering supplies owned by Native Authorities scattered throughout the territory whose maintenance forms an increasing burden on the Water Development and Irrigation Department.

During the course of the year a further five irrigation projects were surveyed and roughly plotted to enable more detailed planning to be drafted. Further to this the acquisition of hydrological data in the Rufiji Basin was started by the establishment and staffing of sixteen staff-gauges and plans prepared for converting eight of these into recording stations, enabling construction to be put in hand early in the new year. With the assistance of F.A.O. personnel, a 300-acre pumped irrigation pilot scheme was started at Mtanza, and a second at Mbingo on the lower reaches of the river in the Rusende flats has been reconnoitred. These two stations, it is intended, will provide invaluable information for future irrigation development in the basin. As a result of the visit of Mr. A. de Vajda, Head of the Land and Water Use Branch of the F.A.O., it has been decided to reduce the speed of survey of the Rufiji Basin to keep the collection and collation of hydrometric data in step with the development of experimental farms. For this reason expenditure during the period 1955-60 has been reduced from £450,000 to £375,000, the major part coming from C.D. & W. sources.

The adoption of perennial irrigation projects has not been without a certain resistance on the part of the conservative African villager who is sometimes slow to accept new ideas. The general policy is that such schemes should be paid for by the beneficiaries, either by direct initial outlay or by recovery over a number of years in the form of water-rate levied on the acreage irrigated. Because of the high initial cost of irrigation projects, the latter procedure has so far generally been adopted.

In the Mlali pilot irrigation project near Morogoro, only the right-bank portion of the scheme (comprising a total irrigated area of 120 acres) has so far been developed, representing about one-half of the full area. The development of the remaining half will depend upon the success attending the present irrigated area, but there is evidence of an awakening enthusiasm and hopes are entertained that the present keenness displayed in the Bagamoyo District for village schemes of a quite small nature will spread.

At Mvuha, further south in Morogoro District, an initial reconnaissance survey of some 1,000 acres immediately below the village has been completed, embracing land which is at present cultivated under swamp irrigation. This will eventually be extended downstream when the demand for development of the area calls for it.

Elsewhere in Morogoro District a tentative pilot irrigation scheme of about 500 acres at Turiani has been reconnoitred, but has been shelved temporarily on account of resistance of the local Africans to change. It is thought likely that the success of the Mlali pilot scheme will have a profound influence here.

At Mianje Mungaa, in Singida District, the dam and tower sluice have now been completed, giving full control over the impounded water, and a survey of the first 1,000 acres of command about ten miles lower down the river gorge has been carried out. This survey is to be extended by a soil survey to permit full planning of the scheme to go ahead so that funds may be set aside.

In Dodoma District, another irrigation project is being surveyed at Ikowa. This will enable some 1,000 acres to be brought under irrigation from the Majenje stream at a rough cost of about £50 per acre.



In the Pangani Valley, a survey of a dam and reservoir of 160,000 acre-feet capacity has been completed. This should provide water sufficient for some 30,000 acres irrigable land, although a survey of the command has not yet been carried out. Elsewhere in Tanga Province the survey of an irrigable area of about 5,000 acres in the Luengera Valley has been completed by contract and marker-beacons fixed. Development of this area however will depend upon the results of further investigation.

In Moshi District, the Chagga Council provided the full capital for development of Blocks C, D, and E of the Lower Uru Irrigation Project of 1,000 acres which have now been completed. These blocks have been laid out in plots of  $7\frac{1}{2}$  acres each, and they comprise two-thirds of the entire scheme, which aims at making the fullest use of 10 cusecs of dry-weather flow in the Rau river. The remaining third of the scheme, Blocks A and B, of 502 acres divided into  $2\frac{1}{2}$ -acre plots, has been shelved for the present.

Hand in hand with the surveys of other irrigation schemes, a large number of gauging-stations has been built during the past year to make available the essential hydrometric data for planning irrigation projects, and the necessary staff recruited to carry on the observations at these stations.

*Masai Development Plan.*—The rate of construction of earth dams in Masailand was slowed down slightly during 1955 on account of the difficulty of maintenance of the earthmoving machinery on dam-sites far removed from their base workshops as those undertaken in the extreme south of Masailand. Nevertheless, three large dams were completed in Southern Masailand to impound a total of 296 million gallons.

Two pipelines were completed, and six boreholes were equipped with pumping plant, one of them with a hand-pump and another with a windmill. Considerable trouble was encountered at the latter borehole which had to be redrilled after its initial collapse. These pumped supplies provide stock-watering facilities in Northern Masailand.

Towards the end of the year, the initial operation of the Water Court indicated that its existing structure was not suitable, so that a temporary rearrangement was made, whereby District Commissioners in various parts of the territory would function as Presidents of the Water Court in their particular district, the Water Registrar meanwhile returning to aegis of the Director of Water Development and Irrigation. As the number of cases for allocation of water rights increases, it is likely that some modification of this procedure will become necessary.

*Urban Water Supplies.*—The development of Urban Water Supplies continues and consumption continues to increase. To cater for the rapid expansion of Dar es Salaam a scheme is already under way for the piping of water from the Ruvu River at a capital cost of about £1,500,000.

Tabora is the last big centre of population without an adequate water supply and plans are being considered for the early construction of a dam on the Igombe River. When this is completed Tabora will be assured of a supply which will be adequate for its domestic and industrial needs for many years to come.

Comparative figures of consumption are given below:—

| URBAN WATER SUPPLIES          |     |                      |     |                        |             |                      |     |                        |
|-------------------------------|-----|----------------------|-----|------------------------|-------------|----------------------|-----|------------------------|
| Water Consumed '000,000 gall. |     |                      |     |                        | Connections |                      |     |                        |
|                               |     | <i>Dar es Salaam</i> |     | <i>Other Townships</i> |             | <i>Dar es Salaam</i> |     | <i>Other Townships</i> |
| 1938                          | ... | 130.2                | ... | 95.8                   | ...         | —                    | ... | —                      |
| 1948                          | ... | 361.8                | ... | 347.7                  | ...         | 1,610                | ... | 2,185                  |
| 1950                          | ... | 365.0                | ... | 426.3                  | ...         | 2,078                | ... | 2,807                  |
| 1952                          | ... | 441.4                | ... | 531.7                  | ...         | 2,681                | ... | 3,678                  |
| 1954                          | ... | 530.1                | ... | 609.5                  | ...         | 4,808                | ... | 6,408                  |

### *Public Electricity Supplies*

These are provided by two subsidiary companies of the East African Power and Lighting Company Ltd., namely the Tanganyika Electric Supply Co. Ltd., which supplies a concession area contained within an imaginary circle of sixty miles radius centred on the Grand Pangani Falls Power Station, and also exports power to Mombasa; and the Dar es Salaam and District Electric Supply Co. Ltd., which supplies Dar es Salaam and eleven other districts in the territory.

All major townships in the territory are supplied either by the Dar es Salaam and District Electric Supply Co. Ltd., or the Tanganyika Electric Supply Co. Ltd. Over sixty per cent of the load is met from hydro-electric sources and the balance from thermal plant, mainly diesel.

A 17,500 kw. hydro-electric station is in operation on the Pangani River, and schemes are in hand to apply some part of the power from the fully developed potential of the Pangani Falls, probably a maximum of 50,000 kw., to Dar es Salaam and the Central Line, as well as towards maintaining and extending the requirements of the Tanga Province.

Diesel plant at Kurasini Power Station at present serves Dar es Salaam and the surrounding area. Additional supply undertakings are operated by the company at Morogoro, Dodoma, Moshi, Arusha, Tabora, Mwanza, Kigoma, Iringa, Lindi and Mtwara. At Nachingwea the company runs an undertaking on behalf of the Tanganyika Agricultural Corporation.

An indication of the steady expansion of these branches may be gained from the statistics on page 14.

Because of the great distances between townships in the territory, separate power stations are required to serve individual settlements, and the haulage of fuel oil, which in some cases has to be transported 600 miles from port, has resulted in high costs of generation. A full-scale examination of the territory's hydro-electric potential, together with the amalgamation of the two companies and the possibility of exporting power from the Pangani Falls to Dar es Salaam, are problems on which the companies are at present engaged.

ELECTRICITY SUPPLIES IN TANGANYIKA—Comparative figures for 1946, 1954 and 1955

| BRANCH                                | Units Sold<br>000's |        |        | Maximum Demand<br>kw. |        |        | Plant Installed<br>kw. |        |        | Consumers Connected |       |       |
|---------------------------------------|---------------------|--------|--------|-----------------------|--------|--------|------------------------|--------|--------|---------------------|-------|-------|
|                                       | 1946                | 1954   | 1955   | 1946                  | 1954   | 1955   | 1946                   | 1954   | 1955   | 1946                | 1954  | 1955  |
| Dar es Salaam                         | 4,137               | 19,641 | 21,824 | 1,212                 | 5,290  | 5,900  | 1,586                  | 10,900 | 9,755  | 2,962               | 8,011 | 8,815 |
| Morogoro                              | —                   | 882    | 981    | —                     | 340    | 360    | —                      | 540    | 540    | —                   | 428   | 572   |
| Dodoma                                | 41                  | 689    | 754    | 26                    | 240    | 240    | 175                    | 350    | 350    | 696                 | 754   | 238   |
| Moshi                                 | 986                 | 3,392  | 3,841  | 380                   | 1,080  | 1,080  | 560                    | 1,520  | 1,520  | 238                 | 1,140 | 1,245 |
| Arusha                                | 466                 | 2,187  | 2,524  | 114                   | 590    | 700    | 260                    | 1,040  | 1,275  | 103                 | 954   | 1,067 |
| Tabora                                | 210                 | 664    | 843    | 73                    | 292    | 342    | 284                    | 550    | 850    | 319                 | 674   | 777   |
| Mwanza                                | 18                  | 1,318  | 1,627  | 96                    | 600    | 580    | 200                    | 660    | 660    | 359                 | 1,139 | 1,198 |
| Kigoma                                | 48                  | 123    | 130    | 26                    | 76     | 98     | 125                    | 207    | 120    | 101                 | 175   | 195   |
| Iringa                                | —                   | 725    | 834    | —                     | 210    | 230    | —                      | 540    | 540    | —                   | 325   | 344   |
| Mbeya                                 | —                   | 510    | 564    | —                     | 163    | 176    | —                      | 240    | 360    | —                   | 323   | 325   |
| Lindi                                 | —                   | 464    | 500    | —                     | 160    | 190    | —                      | 475    | 480    | —                   | 482   | 487   |
| Mtwara                                | —                   | 55     | 193    | —                     | 44     | 90     | —                      | 154    | 154    | —                   | 76    | 208   |
| Tanganyika Electricity Supply Company | 13,828              | 54,614 | 61,516 | 5,050                 | 14,050 | 14,000 | 7,500                  | 17,500 | 17,500 | 972                 | 2,373 | 4,262 |

NOTE: All figures for 1955 are provisional.



## LAND

The policy of land utilization in the territory is based on the conviction that the vast undeveloped land resources can best be harnessed for the good of all the inhabitants of whatever origin by a combination of the efforts of the African himself with improved methods of cultivation and land utilization and the assistance, stimulus and guidance afforded by non-African agriculture working side by side towards a common goal. In 1955 the demand for land continued and although the total number of Rights of Occupancy granted for all purposes was slightly less than last year's figure there was a substantial rise in the number of agricultural and pastoral rights of occupancy granted.

### RIGHTS OF OCCUPANCY GRANTED

|      |     |     | Agricultural<br>and Pastoral |     | Trading and<br>Residential |     | Miscellaneous<br>(Missions,<br>Schools,<br>Factories,<br>Labour Lines,<br>Recreation<br>Grounds, etc.) |     |     |
|------|-----|-----|------------------------------|-----|----------------------------|-----|--------------------------------------------------------------------------------------------------------|-----|-----|
|      |     |     | Long Term                    |     | Short Term                 |     |                                                                                                        |     |     |
| 1953 | ... | ... | 99                           | ... | 7                          | ... | 954                                                                                                    | ... | 306 |
| 1954 | ... | ... | 58                           | ... | 7                          | ... | 1,022                                                                                                  | ... | 279 |
| 1955 | ... | ... | 92                           | ... | 3                          | ... | 923                                                                                                    | ... | 298 |

Twenty-three new trading centres were established. New alienations for agricultural and pastoral purposes covered some 133,229 acres in all. In addition to these Rights of Occupancy, 355 plots were allocated for the use of Government and High Commission departments.

The total area over which rights of occupancy are now held is 2,248,366 acres, which is about one per cent of the total land area of the territory. Registered freehold titles dating from the days of the German administration cover 472,122 acres.

## LABOUR

Despite good native harvests in most areas the shortage of labour coming forward for paid employment normally experienced under such circumstances did not appear to have been so acute as might have been expected although agricultural concerns in the Northern Province and employers in the Lake Province were unable to obtain all their labour requirements during parts of the year.

The Employment Ordinance (No. 47 of 1955) which completely revises all existing labour legislation of a general character was enacted in November. Unlike the existing law which it replaces this measure is generally applicable to all races.

Industrial relations have been generally harmonious throughout the year and no trade disputes of major significance have occurred. The most important development has been the formation of a considerable number of new trade unions of which sixteen were registered during the year. A feature of special significance in this sphere has been the establishment of a Tanganyika Federation of Labour having a membership consisting both of registered trade unions and of staff associations. It is too early to forecast to what extent these developments in trade unionism will affect the framework of industrial relations in the territory

since, although the leaders of the new Unions appear to be most willing to negotiate with employers for their members on an amicable basis, no progress has yet been made in setting up machinery, either formal or informal, for the purpose of facilitating negotiations between unions and employers. At the end of the year there were twenty-three trade unions in existence having a total membership of over 3,000.

An enumeration of Africans in paid employment was carried out during the period July to September. The results of the enumeration show that there was a total of 413,100 Africans of both sexes in employment as compared with 439,094 at the time of the enumeration held in 1954.

#### INDUSTRIAL CLASSIFICATION OF AFRICAN WORKERS—1955

|                                                                             |                     |
|-----------------------------------------------------------------------------|---------------------|
| Agriculture, Forestry, Hunting and Fishing                                  | 201,350             |
| Mining and Quarrying                                                        | 14,346              |
| Manufacturing                                                               | 17,380              |
| Construction                                                                | 12,161              |
| Electricity, Gas, Water and Sanitary Services (excluding local authorities) | 1,634               |
| Commerce                                                                    | 11,267              |
| Transport, Storage and Communications (excluding Government)                | 6,204               |
| Services                                                                    | 11,261              |
| Government, High Commission and Local Authorities                           | 99,368              |
| Domestic service (not enumerated) estimated at                              | 30,000              |
| Unclassified workers                                                        | 8,129               |
|                                                                             | <hr/> 413,100 <hr/> |

No differentiation has been made between casual and permanently employed persons.

Steady progress has been made during the year both in the establishment of joint consultative machinery and in the formation of new works committees and councils. At the end of the year there were sixty-four formally constituted joint consultative committees of which forty-five were in departments of Government and of the East Africa High Commission.

*Government Trade School, Ifunda.*—The Government Trade School at Ifunda is at present the only large institution providing technical education, but considerable progress has been made with the progress of a second trade school at Moshi.

In addition the planning of the Technical Institute in Dar es Salaam to be run on similar lines to a technical institute in the United Kingdom was completed and construction is shortly to start.

With few exceptions the sixty-three pupil apprentices who left Ifunda at the end of 1954 after having completed the three year course, were successfully placed through the employment exchanges of the Labour Department as indentured apprentices in either private or Government industrial establishments. On-training has likewise been arranged through the employment exchanges for the majority of the seventy-two pupil apprentices who are due to leave the school at the end of this year.

At the end of 1955 courses of training by trades and the numbers enrolled were as follows:—

|                                        | 3rd Year | 2nd Year  | 1st Year  | Total     |
|----------------------------------------|----------|-----------|-----------|-----------|
| Carpenters ... ..                      | 25       | 28        | 32        | 85        |
| Masons ... ..                          | 5        | 6         | 14        | 25        |
| Painters ... ..                        | 1        | —         | 6         | 7         |
| Plumbers ... ..                        | 1        | 5         | 6         | 12        |
| Electricians ... ..                    | 10       | 7         | 9         | 26        |
| Vehicle Mechanic Welders ... ..        | 3        | 12        | —         | 15        |
| Vehicle Mechanic Fitter-Turners ... .. | 6        | 7         | —         | 13        |
| Vehicle Mechanic Tinsmiths ... ..      | 3        | 12        | —         | 15        |
| Tractor Mechanic Welders ... ..        | 5        | 16        | —         | 21        |
| Tractor Mechanic Fitter-Turners ... .. | 6        | 7         | —         | 13        |
| Tractor Mechanic Blacksmiths ... ..    | 4        | 13        | —         | 17        |
| Engineering Mechanics ... ..           | —        | —         | 81        | 81        |
| Tailors ... ..                         | 2        | 3         | —         | 5         |
| Shoemakers ... ..                      | 1        | —         | —         | 1         |
|                                        | <hr/> 72 | <hr/> 116 | <hr/> 148 | <hr/> 336 |

Industrial and educational training is also provided by the industrial sections of certain Government and voluntary agency schools and by departments of both the Central Government and the East Africa High Commission services in agriculture, forestry, veterinary science, medical science, printing and engineering and telecommunication services. The scope of these establishments is indicated by the following figures of Tanganyika Africans training in some of the more important departmental schools:—

|                                           |     |
|-------------------------------------------|-----|
| Medical Department ... ..                 | 436 |
| Government Press ... ..                   | 68  |
| East African Railways and Harbours ... .. | 250 |

In several areas increases in wages were granted to industrial grade workers employed by Government on daily rates of pay.

In agriculture generally wages have remained substantially constant throughout the year with perhaps a slight upwards tendency in certain areas.

Sixteen employment exchanges were operating at the end of the year. Through them 10,018 Africans were placed in employment during 1955 compared with 9,310 in 1954.

#### CURRENCY AND CREDIT FACILITIES

The supply of currency is supervised by the East African Currency Board established in London. Currency is issued or redeemed in Tanganyika against sterling payment to or by the Board in London, subject to a commission of one quarter of one per cent.

There is no fiduciary issue and there is no power to vary the parity of the East African shilling.

The amount of currency in circulation in Tanganyika rose by some £1½ million during the year ended 30th June 1955. The increase in circulation reflects the rise in the cost of living and the increased economic progress of the territory.

Most of the commercial banking of the territory is carried out by three banks incorporated in the United Kingdom. There are also branches of a Netherlands bank and an Indian bank in Dar es Salaam. In the absence of facilities for holding liquid assets in local investment and because of the need to keep sterling balances available in London for ready transfer to the Currency Board, the banks hold the major part of their assets outside the territory.



The Post Office Savings Bank provides facilities for small depositors. The estimated balance on deposit on 31st December, 1955 was £2,598,000, as compared with the sum of £2,410,420 at 31st December, 1954.

The Land Bank has been in operation since the 1st October, 1948 to provide loans for agricultural purposes on the security of land and chattels. The maximum amount on any loan is £10,000 but the maximum is further restricted to 70 per cent of the value of the land or 75 per cent of the value of the chattels. Long term loans may be made for a period of up to 15 years and short term loans up to 5 years. Loans outstanding at the end of 1955 totalled £535,402. Loans issued during the year were £134,577, and repayments received were £121,292.

The African Loan Funds Committee administers two loan fund schemes which are specifically reserved for Africans. The first of these is the Local Development Loan Fund which has a capital of £100,000 and its object is to assist Africans with the development of natural resources projects. During 1955, 46 loans were granted, and at the end of the year 165 loans representing a total of Shs. 1,378,025/- were current. The second fund, the African Productivity Loan Fund, also has a capital of £100,000 which was granted from the Foreign Aid Organization of the United States Government. At the end of the year, after just over one year's operation 108 loans were granted, representing a total of Shs. 779,805/-. This latter loan fund has a wider scope than the Local Development Fund and, in addition to loans being granted for the development of natural resources projects, they can also be used for industrial projects such as the purchase of maize milling machinery, carpenters tools, tinsmiths' equipment, etc. Interest at the rate of 2½ per cent is presently being charged and most loans are of a short term nature; the average being from three to five years. Although the committee takes a liberal attitude towards the amount of security needed to secure a loan, the number of write-offs have so far been very small, and have frequently been due to extraneous causes. The following figures illustrate the purposes for which loans have been granted up to the end of 1955.

#### (1)—LOCAL DEVELOPMENT LOAN FUND

| Purpose of Loan               | Current loans<br>31.12.55. |                 |
|-------------------------------|----------------------------|-----------------|
|                               | No.                        | Shs.            |
| Copra Industry ... ..         | 5                          | 9,500           |
| Dams and Irrigation ... ..    | 1                          | 10,000          |
| Fruit Farming ... ..          | 2                          | 3,000           |
| General Agriculture ... ..    | 133                        | 459,815         |
| Livestock ... ..              | 2                          | 13,500          |
| Mechanical Cultivation ... .. | 17                         | 862,710         |
| Poultry Farming ... ..        | 1                          | 8,000           |
| Rice Production ... ..        | 4                          | 11,500          |
| Fishing Equipment ... ..      | —                          | —               |
|                               | <hr/> 165                  | <hr/> 1,378,025 |

#### (2)—AFRICAN PRODUCTIVITY LOAN FUND

| Purpose of Loan               | Current Loans<br>31.12.55. |         |
|-------------------------------|----------------------------|---------|
|                               | No.                        | Shs.    |
| Agricultural Machinery ... .. | 24                         | 382,445 |
| Carpentry ... ..              | 1                          | 8,000   |
| Coffee Factories ... ..       | 1                          | 6,345   |
| Contractors' Equipment ... .. | 5                          | 83,500  |
| Copra Industry ... ..         | 14                         | 17,500  |
| Dams and Irrigation ... ..    | 2                          | 9,775   |

**(2)—AFRICAN PRODUCTIVITY LOAN FUND—contd.**

| Purpose of Loan                                                                                           | Current Loans |         |
|-----------------------------------------------------------------------------------------------------------|---------------|---------|
|                                                                                                           | 31.12.55      |         |
|                                                                                                           | No.           | Shs.    |
| Fish Farming ... ..                                                                                       | 1             | 500     |
| Fishing Equipment ... ..                                                                                  | 12            | 22,700  |
| Home Industries (including Tailoring, Tinsmiths, Shoe-making, Canoe Building and Bicycle Workshop) ... .. | 17            | 45,160  |
| Industrial Machinery ... ..                                                                               | 2             | 47,500  |
| Initial Clearing of Land ... ..                                                                           | 1             | 1,000   |
| Milling Machinery ... ..                                                                                  | 13            | 94,060  |
| Other Natural Resources Projects ... ..                                                                   | 12            | 46,660  |
| Poultry Farming ... ..                                                                                    | 2             | 4,660   |
| Tailoring Establishments ... ..                                                                           | 1             | 10,000  |
|                                                                                                           | 108           | 779,805 |

The Urban Housing Loan Fund, the object of which is to assist Africans to borrow money to purchase their own houses is slowly getting into its stride, and at the end of the year, 26 loans had been granted, representing Shs. 233,300/-. Many procedural difficulties have been encountered such as the allocation of land on a long term Right of Occupancy basis in high density areas where surveys had previously not been necessary. Interest is charged at approximately 4½ per cent, and the loans are normally repayable in 20 years; a mortgage being taken out over the house constructed with the funds loaned to the borrower. As an experiment in Dar es Salaam six plinths were constructed and on one of these plinths a house has been built. Since there were a large number of applicants who desired to buy this house with the assistance of a loan, it has been decided to build further houses, and it may well be that the scheme may develop very considerably. The other plinths have been acquired by other borrowers who have taken the value of the plinth as part of their loan and then are constructing their own houses with the assistance of further loans.

The Mining Loan Board has approved two loans during the year totalling £1,500, only one loan was finally made however.

The Savings and Loans Society operates in Kenya, Uganda and Tanganyika to afford investment facilities at a fixed rate of interest with easy conditions for withdrawal, and to provide loans for the purchase or erection of houses. The society is a subsidiary of the Pearl Insurance Company. The emphasis is upon loans to owner-occupiers, but capital is also provided for commercial housing schemes.

The First Permanent Building Society which provides loans for the purchase or erection of houses, was established in Tanganyika towards the end of 1954. At the 31st December, 1955, it held 234 mortgages throughout the territory for some £609,831—a large increase on previous figures.

Various self-help societies and trusts provide credit facilities for the members of particular religious brotherhoods. But there is no internal money or securities marked, and it is still true that funds for large scale activities cannot be raised locally.

| Currency in circulation in Tanganyika as at 30th June |     |            | Post Office Savings Bank Deposits as at 31st December |     |           |
|-------------------------------------------------------|-----|------------|-------------------------------------------------------|-----|-----------|
| £                                                     |     |            | £                                                     |     |           |
| 1939                                                  | ... | 605,469    | 1939                                                  | ... | 99,217    |
| 1949                                                  | ... | 4,001,015  | 1949                                                  | ... | 1,596,032 |
| 1954                                                  | ... | 15,693,405 | 1954                                                  | ... | 2,410,421 |
| 1955                                                  | ... | 17,236,126 | 1955                                                  | ... | 2,598,000 |

# COMMERCIAL BANKS IN TANGANYIKA AND ZANZIBAR

POSITION AT 31ST DECEMBER (£'000)

|                                   | 1948          | 1953          | 1954          | 1955          |
|-----------------------------------|---------------|---------------|---------------|---------------|
| <i>Liabilities:</i>               |               |               |               |               |
| Deposits ...                      | 12,941        | 23,049        | 22,965        | 21,198        |
| Balances due to other Banks ...   | 385           | 2,945         | 3,210         | 5,918         |
| Other Liabilities ...             | 87            | 574           | 667           | 1,235         |
| <b>Total</b> ...                  | <b>13,413</b> | <b>26,568</b> | <b>26,843</b> | <b>28,352</b> |
| <i>Assets:</i>                    |               |               |               |               |
| Cash ...                          | 850           | 1,762         | 2,190         | 1,690         |
| Balances due from other Banks ... | 10,637        | 16,691        | 13,660        | 14,427        |
| Loans for Industry ...            | 425           | 2,574         | 2,160         | 1,499         |
| Loans for Agriculture ...         | 184           | 1,946         | 3,753         | 2,625         |
| Other Assets ...                  | 1,317         | 3,595         | 5,080         | 8,111         |
| <b>Total</b> ...                  | <b>13,413</b> | <b>26,568</b> | <b>26,843</b> | <b>28,352</b> |

The local councils board receives on deposit the surplus balances of all Native Treasuries and Local Councils. The board makes loans to county councils, town councils, local councils and native authorities to finance capital works. The total deposits at the end of 1955 were £878,368 and the total of loans outstanding amounted to £205,097.

## PUBLIC FINANCE

The Public Debt at 30th June, 1955 stood at £10,929,022.

Reserves and surplus balances amounted to £9,233,869; £3,452,000 represents reserves tied to specific services (e.g. Development, Plant Renewals, Sinking Funds) whilst the remainder represents the safety balance.

Reserve and surplus balance investments amounted to £9,574,000.

A number of self-financing urban local authorities were formed during the course of the year. Such local authorities are financed partly from local rates and partly from Government grants and Government taxes made available for their use.

The financial year runs from 1st July to the 30th June; details of the revenue and expenditure by main headings are given in the following schedule:—

## CENTRAL GOVERNMENT FINANCE

£'000

| Revenue                                                      | 1949         | 1953          | 1954/5        | 1955/6<br>Estimates |
|--------------------------------------------------------------|--------------|---------------|---------------|---------------------|
| <i>Direct Taxation:</i>                                      |              |               |               |                     |
| Income Tax...                                                | 1,097        | 4,209         | 4,601         | 4,250               |
| Native House and Poll Tax                                    | 610          | 930           | 975           | 1,282               |
| Other                                                        | 166          | 327           | 331           | 269                 |
| <i>Indirect Taxation:</i>                                    |              |               |               |                     |
| Import Duties                                                | 3,150        | 3,258         | 4,820         | 4,850               |
| Excise Duties                                                | 557          | 1,011         | 1,346         | 1,700               |
| Other                                                        | 547          | 993           | 1,449         | 955                 |
| <i>Provision of Goods Services by Government Departments</i> | 338          | 770           | 880           | 990                 |
| <i>Government Property</i>                                   | 1,387        | 1,503         | 1,768         | 1,746               |
| <i>Miscellaneous</i>                                         | 383          | 934           | 2,201         | 1,151               |
| <b>Total (excluding Development Plan)</b>                    | <b>8,234</b> | <b>13,935</b> | <b>18,379</b> | <b>17,191</b>       |
| Imperial and foreign grants for Development                  | 566          | 1,085         | 801           | 1,169               |
| Miscellaneous Development Plan                               |              |               |               |                     |
| Revenue                                                      | —            | 44            | 45            | 245                 |
| <b>Total Revenue (excluding transfers from reserves)</b>     | <b>8,800</b> | <b>15,064</b> | <b>19,225</b> | <b>18,605</b>       |



£'000

| Expenditure                                             | 1949  | 1953   | 1954/5 | 1955/6<br>Estimates |
|---------------------------------------------------------|-------|--------|--------|---------------------|
| Administration ... ..                                   | 712   | 1,108  | 1,390  | 1,514               |
| Maintenance of Law and Order ... ..                     | 629   | 1,285  | 1,687  | 2,008               |
| Revenue Collection and Financial Control ... ..         | 234   | 410    | 405    | 472                 |
| Public Debt ... ..                                      | 130   | 309    | 561    | 527                 |
| Pensions and Gratuities ... ..                          | 292   | 596    | 683    | 740                 |
| Defence ... ..                                          | 120   | 317    | 588    | 560                 |
| Economic Services ... ..                                | 1,029 | 2,325  | 2,899  | 3,495               |
| Local Government ... ..                                 | 177   | 404    | 770    | 587                 |
| Social Services ... ..                                  | 1,428 | 3,197  | 3,912  | 4,763               |
| Unallocated items ... ..                                | 1,959 | 3,572  | 2,677  | 2,297               |
| Total (excluding Development Plan) ... ..               | 6,710 | 13,525 | 15,572 | 16,965              |
| Development Plan ... ..                                 | 1,687 | 3,727  | 3,337  | 6,591               |
| Total Expenditure (excluding transfers to reserves) ... | 8,397 | 17,252 | 18,889 | 23,556              |

NOTES: 1. Any apparent errors in totals are due to rounding

2. The amount of native house and poll tax transferred to local authorities is excluded from revenue and expenditure.

## LOCAL GOVERNMENT FINANCE

## DAR ES SALAAM MUNICIPALITY

£'000

| Revenue  |                   |                            |            |       |       | Expenditure                |                 |               |       |
|----------|-------------------|----------------------------|------------|-------|-------|----------------------------|-----------------|---------------|-------|
|          | Government Grants | Fees, Licences, Land Rents | Native Tax | Rates | Total | Administration and General | Roads and Works | Public Health | Total |
| 1953 ... | 79                | 74                         | 30         | 110   | 293   | 79                         | 94              | 115           | 288   |
| 1954 ... | 74                | 102                        | 30         | 166   | 372   | 125                        | 77              | 133           | 335   |
| 1955 ... | 84                | 109                        | 28         | 210   | 431   | 174                        | 122             | 148           | 444   |

## NATIVE TREASURIES

| REVENUE     |            |       |       | EXPENDITURE          |                 |                   |       |       | £'000 |
|-------------|------------|-------|-------|----------------------|-----------------|-------------------|-------|-------|-------|
|             | Native Tax | Other | Total | Local Administration | Social Services | Natural Resources | Other | Total |       |
| 1953 ... .. | 757        | 1,170 | 1,927 | 892                  | 590             | 165               | 222   | 1,869 |       |
| 1954 ... .. | 765        | 1,425 | 2,190 | 1,014                | 778             | 263               | 299   | 2,354 |       |
| 1955 ... .. | 1,233      | 1,412 | 2,645 | 1,145                | 857             | 304               | 604   | 2,915 |       |

## II. PRODUCTION AND TRADE

## AGRICULTURE

*Production*

A review of agricultural policy in all provinces is being made in the light of recommendations contained in the Report of the Royal Commission on Population and Land.

Rainfall was generally below average but well distributed over most of the territory. In place of famine the Central Province reaped good harvests, but some farms in parts of the Northern Province suffered severely from drought. As a result of the well distributed rainfall, record crops of maize and rice were harvested. Increases in the maize crop were most marked in the Southern Highlands, Western and Eastern Provinces. The Eastern Province rice crop was a record and crops in most other areas were generally above recent levels. Over 120,000 tons of maize and 30,000 tons of paddy were sold during the year.

While the sorghum crop was good in most provinces, yields in the Southern Province were appreciably reduced by cold and overcast weather.

In the last report attention was drawn to the deteriorating position of the supply of locally grown wheat in relation to the growing demand for wheat bread by the African population. This position has considerably worsened in 1955 as a result of drought in one area, and an attack of stem rust of unprecedented severity throughout the major wheat growing area of the Northern Province. The crop at 4,200 tons was only half of that of 1954 and the lowest since 1948.

It was not a good season for pulse crops, ill-distributed rains later in the season having an adverse effect on yields and encouraging disease and pests.

In Tanganyika, with its erratic rainfall, the provision of water for irrigation could have a profound effect on production in many areas. In the 1954 report reference was made to the survey of the Rufiji Basin by experts of the United Nations Food and Agricultural Organization. This major survey project, now managed by the Tanganyika Agricultural Corporation on behalf of Government, has made more rapid progress than expected, with the result that a start has been made with intensive surveys in selected areas and with one of the trial farms. Surveys have also started elsewhere on two major schemes and one minor, the object of which is to integrate irrigation with a more general dry farming system. Other small irrigation schemes are at various stages of development.

There were further extensions to the tenant farming schemes initiated by the Overseas Food Corporation and now run by the Tanganyika Agricultural Corporation. In the main the tenants had a successful year and some high yields were obtained.

Experimental and research work has made an important contribution to some of the increased production that has taken place in the past few years. For the greatest benefit to be derived this work must be adequately co-ordinated. During 1955 the post of Assistant Director of Agriculture (Research) was created and filled. This is the first step in the reorganization and extension of agricultural research in the territory. Plans have been drawn up for the creation of four regional research stations, based on existing centres, with suitably placed sub-stations. Experimental work has continued on all important aspects of the production of all major crops. The pattern has not changed from that reported previously. Marked success continued to be achieved with improved strains of cotton distributed in the Lake and Eastern Provinces. Further progress was made in applying in the field the results of research in pest control, particularly in the case of white stem borer in coffee. Important progress continued to be made in maize and sorghum breeding work both at Government stations and at those run by the Tanganyika Agricultural Corporation. Increased attention has been given to the control of two important pests of coconuts and cashew nuts which are responsible for serious reductions in yield.

In the last report attention was drawn to record production in certain major cash crops. Some of these records have been substantially broken again in 1955. Territorial cotton lint production reached a record figure of 120,417 bales (estimated) the Lake Province contributing a record of 107,650 bales. The Tanga Province quadrupled its crop at 1,450 bales (estimated). Both cashew nut (15,000 tons marketed by the end of 1955) and tea (2,019 tons) broke last year's record figures. Flue cured tobacco production (1,512 tons) was only a little below the 1954 record.



Pyrethrum (613 tons) continued to show a steady increase in production. There is an increasing native interest in its production in all the main growing areas.

Groundnuts and sesame production showed a very welcome improvement. The groundnut crop (7,721 tons) was the best since 1952 and the sesame crop (4,500 tons) the best since 1938. Total sisal production was slightly below that for 1954 and amounted to 176,500 tons.

Generally good crops of coffee were again obtained in 1955 although the production of mild coffee (10,415 tons) was 10 per cent below the 1954 crop. The "hard" crop (8,708 tons) however showed an increase of 1,400 tons. Prices for all coffee declined during the year but showed signs of recovery at the end of the year. There is an increased interest amongst non-native producers in irrigation and there has been an improvement in the management of native coffee in the Southern Highlands and Southern Provinces. In Lupembe a new African industry is being established and 1,100 acres have been planted. The good prices for coffee have also brought about the revival of the crop in the Usambara mountains.

The Tanganyika Agricultural Corporation (formerly the Overseas Food Corporation) had a successful year. The Corporation is financed from the balance of the £6 million previously made available by Her Majesty's Government to the Overseas Food Corporation for their undertaking up to September, 1957. This is made available by way of grants under the Colonial Development and Welfare Schemes. The implementation of the corporation's plan to lease the cleared land at Urambo to tenant farmers is proceeding well, and from results achieved to date there is every reason to believe that the plan will prove successful, and will benefit not only the native tenants, but will also ensure that the land cleared in previous years will continue to be farmed productively, and thus contribute in substantial measure to the evolution of a sound farming economy in Tanganyika.

Owing to the hazardous nature of the rainfall in the Kongwa area, it became evident to this corporation that large scale mechanized farming could not be regarded as an economic proposition and it was accordingly decided to restrict the corporation's activities in the Kongwa area to cattle ranching and an African Tenant Scheme, closely linked to the ranching project. Alongside these two main activities, the corporation has continued to maintain its experimental station, which is engaged in research into pasture improvement.

At Nachingwea farming operations are continuing on the pattern hitherto obtaining, with a view to ascertaining the economic future of large scale farming operations in that area. At the same time the development and expansion of the African Tenant Scheme is also proceeding. The production of costs and statistics for the purpose of establishing the economics of clearing mechanized, or partially mechanized, agriculture under tropical conditions, as envisaged by Command 8125, is continuing.

Very high yields of groundnuts were produced from the new strain which is resistant to rosette disease. Soya beans and maize were also highly productive.

At Urambo the production of flue-cured tobacco expanded successfully. The possibility of developing economically the large areas of land opened there has been taken a step further with the advertisement of leasehold farms.



Acreages planted at Tanganyika Agricultural Corporation centres are shown below:—

|             | Groundnuts | Maize     | Sorghum   | Rice    | Soya      | Tobacco | Other Crops | Total  |
|-------------|------------|-----------|-----------|---------|-----------|---------|-------------|--------|
| Kongwa      | 780 ...    | 750 ...   | 630 ...   | — ...   | — ...     | — ...   | — ...       | 2,160  |
| Urambo      | — ...      | 6,634 ... | 1,177 ... | 215 ... | 341 ...   | 614 ... | 1,125 ...   | 10,106 |
| Nachi-ngwea | 2,310 ...  | 4,022 ... | 4,505 ... | 60 ...  | 1,402 ... | 60 ...  | 5,341 ...   | 17,700 |

### Marketing

The purchase of wheat, maize and paddy remained under Government control until October, 1955, when control over the sale of maize and paddy was removed. Sorghum was removed from control at the beginning of 1955, but a guaranteed price of 30/- per bag was offered by the Grain Storage Department for true white varieties. Basic guaranteed producer prices were:—

|                              | Per 200 lb. naked | 1954  | 1955  |
|------------------------------|-------------------|-------|-------|
| Wheat grade I                | ...               | 52/50 | 52/50 |
| Maize F.A.Q.                 | ...               | 38/-  | 38/-  |
| Paddy, grade I per 100 kilos | ...               | 60/-  | 60/-  |

The Lint and Seed Marketing Board maintained fixed basic prices to growers for Grade I seed cotton at 63 cents per lb. in the Lake Province, and 134 cents per kilogram in other parts of the territory. Prices for Grade III seed cotton were raised to 20 cents per lb. or 45 cents per kilo in the hope that the enhanced price would induce cultivators to grade more carefully and to pick more of the low grade crop at the end of the season. The increase was more than justified by the prices which were ruling for B.R. lint, but it is doubtful whether the subsidiary objects were achieved.

In the Lake Province, the number of co-operative societies handling the cotton crop increased to 113 and they bought 43.6 per cent of the crop. There were no changes in the arrangements for the sale of cotton lint and cotton seed.

At the end of April the marketing of the Bukoba coffee crop was taken over entirely by the Bukoba Native Co-operative Union. The Union went into partnership with one of the firms engaged in processing the crop.

The Produce Inspection Service, started on a voluntary basis at Mtwara in January, 1954, was discontinued, as no useful purpose was being served. While the quality of much of the produce leaving Tanganyika could be improved, the introduction of a grading inspectorate over the whole length of territorial boundary would necessitate very high capital and recurrent expenditure.

The Crops (Increased Production) Ordinance lapsed at the end of 1955 and the work of District Production Committees came to an end. These committees did very useful work of a non-statutory nature in addition to their statutory functions and in some districts their place is to be taken by Natural Resources Sub-Committees of the District Advisory Councils. In spite of the more favourable crop season over most of the territory, guaranteed minimum returns amounting to £73,300 had to be paid. This was largely due to the widespread and disastrous stem rust attack on wheat and drought in parts of the Northern Province.

### Inland Fisheries

The "dagaa" fisheries on Lake Tanganyika, operated on improved methods directly arising from the work of the Fisheries Officer, had another prosperous year. 1,550 tons of dried "dagaa" were sold. The use of outboard engines for dagaa fishing has increased. The vessel *Sangala* on Lake Tanganyika, which had largely completed the task allotted to her, was sold.

Due to poor rains the level of Lake Rukwa fell and the *Tilapia* fisheries had a difficult year, and the heavy export of smoked fish to Northern Rhodesia in 1954 was not repeated.

The main function of the Korogwe Fish Farm has been the selection and breeding of certain species of *Tilapia* for the distribution of fry. Stocks of snail eating fish for the control of schistosomiasis in certain waters have been maintained.

At present there is little prospect for widespread establishment of fish ponds on an economic basis among Africans, not only because perennial water supplies are unreliable in most of the territory, but because there is not the type of peasant holding in which fish farming can form an integral part of intensive mixed farming. In some of the highland areas water supplies can be assured and non-natives have been interested in fish ponds. Unfortunately the ecological conditions of these are usually unsuited to *Tilapia* and fish farming seems unlikely to be economic.

Therefore the department is concentrating more on the stocking of dams and reservoirs. This is an extremely promising proposition, because some kind of fish can invariably be found which is suited to local condition. Even if waters tend to dry out completely in the dry season there are quick growing fish which will provide a crop.

#### Marine Fisheries

In 1951 the M.F.V. *Patoni* was purchased to investigate the commercial possibilities of offshore fishing. Early in 1955 it became apparent that if *Patoni* were to put in sufficient time at sea to justify her high operational cost a new main engine would be required. In view of the heavy cost, and of the information coming forward from the East African Fisheries Research Organization on the lack of prospects for deep water fishing off the East African Coast, it was decided to sell the vessel.

The detailed survey of the native fisheries along the Tanganyika coast was continued and intensified.

#### EXPORTS FROM TANGANYIKA OF AGRICULTURAL PRODUCTS

|                    | Highest Export<br>prior to 1955 |         | 1954<br>Amount | 1955<br>Amount | Export<br>value 1955 |
|--------------------|---------------------------------|---------|----------------|----------------|----------------------|
|                    | Year                            | Tons    | Tons           | Tons           | £                    |
| Sisal...           | 1953                            | 171,151 | 167,642        | 173,676        | 9,956,151            |
| Cotton Lint        | 1953                            | 14,749  | 12,111         | 20,374         | 5,533,909            |
| Coffee             | 1954                            | 19,382  | 19,382         | 18,499         | 6,904,717            |
| Barley             | 1954                            | 293     | 293            | 452            | 9,582                |
| Beans and Pulses   | 1952                            | 23,184  | 10,432         | 8,279          | 522,665              |
| Beans, Soya        | 1953                            | 674     | 522            | 567            | 21,036               |
| Cashew Nuts        | 1954                            | 16,298  | 16,298         | 18,202         | 868,534              |
| Castor Seed        | 1952                            | 12,345  | 9,609          | 7,870          | 309,881              |
| Cassava            | 1952                            | 15,177  | 1,714          | 2,486          | 39,903               |
| Copra              | 1928                            | 9,318   | 2,046          | 4,723          | 259,720              |
| Fats               | 1948                            | 1,689   | 91             | 83             | 5,315                |
| Gum, Arabic        | 1950                            | 2,319   | 1,534          | 2,125          | 206,850              |
| Gum, Copal         | 1950                            | 110     | 58             | 70             | 5,218                |
| Groundnuts         | 1936                            | 22,786  | 2,503          | 5,586          | 345,522              |
| Kapok              | 1953                            | 838     | 581            | 872            | 215,974              |
| Maize              | 1952                            | 8,353   | -              | 35,835         | 746,569              |
| Millet and Sorghum | 1928                            | 7,732   | 17             | 13,150         | 227,491              |
| Onions             | 1948                            | 2,418   | 872            | 151            | 5,210                |
| Palm Kernels       | 1954                            | 674     | 674            | 386            | 15,680               |



**EXPORTS FROM TANGANYIKA OF AGRICULTURAL PRODUCTS—(contd.)**

|                       | Highest Export<br>prior to 1955 |        | 1954<br>Amount | 1955<br>Amount | Export<br>value 1955 |
|-----------------------|---------------------------------|--------|----------------|----------------|----------------------|
|                       | Year                            | Tons   | Tons           | Tons           | £                    |
| Papain ... ..         | 1948                            | 130    | 103            | 37             | 46,059               |
| Pyrethrum ... ..      | 1945                            | 697    | 136            | 275            | 79,708               |
| Rice ... ..           | 1938                            | 17,965 | 72             | 1,247          | 55,429               |
| Rubber ... ..         | 1944                            | 1,314  | —              | —              | —                    |
| Sesame ... ..         | 1938                            | 5,241  | 3,108          | 4,207          | 292,541              |
| Sugar ... ..          | 1941                            | 5,454  | 2              | —              | —                    |
| Sunflower Seed ... .. | 1952                            | 17,708 | 10,202         | 12,506         | 377,468              |
| Tea ... ..            | 1954                            | 1,566  | 1,566          | 1,689          | 535,166              |
| Tobacco ... ..        | 1948                            | 1,421  | 350            | 448            | 88,618               |
| Vegetable Oils ... .. | 1940                            | 2,268  | 723            | 61             | 7,145                |
| Wattle Bark ... ..    | 1954                            | 2,122  | 2,122          | 4,837          | 109,291              |
| Wheat ... ..          | 1945                            | 4,511  | 10             | —              | —                    |
| Essential Oils ... .. | 1950                            | 9      | 2              | 3              | 4,725                |
| Total ... ..          | —                               | —      | 264,775        | 338,696        | £27,795,777          |

**LIVESTOCK**

The better climatic conditions prevailing over the year helped to maintain livestock in better condition. As a result, the cattle population increased considerably, though there were reductions in the numbers of sheep and goats. The estimated totals of cattle and small stock compared with adjusted totals for the previous two years were as follows:—

|             | Cattle    | Sheep     | Goats     |
|-------------|-----------|-----------|-----------|
| 1953 ... .. | 6,632,588 | 3,066,158 | 4,383,692 |
| 1954 ... .. | 6,487,955 | 3,023,570 | 4,410,139 |
| 1955 ... .. | 6,763,700 | 2,727,359 | 3,886,993 |

Although destocking orders were issued in most overstocked districts, sales were not generally increased. Cattle and small stock continued to be marketed at native authority livestock markets, and the total annual sales on primary markets were 316,537 cattle and 242,995 sheep and goats, which was an increase on the record sales of last year. As a result of a steep rise during the second half of the year, average prices of slaughter cattle at Shs. 133/06 were higher than those of 1954. Messrs. Tanganyika Packers Limited continued to buy, but generally increasing demand for slaughter cattle, and the resultant higher prices, did not allow them to increase greatly the number of their purchases for the Dar es Salaam and Arusha factories; a total of 62,241 head were bought altogether.

As a result of decreased mortality among livestock in the country, fewer hides and skins were exported, though prices remained relatively high over most of the year, reaching the highest point for at least two years during December. Total exports from the country, together with their values, were as follows:—

| Product                 | Exports          | Value<br>£        |
|-------------------------|------------------|-------------------|
| Dried hides ... ..      | 7,100,732 lb.    | 601,901           |
| Wet-salted hides ... .. | 1,331,040 lb.    | 68,795            |
| Dried sheepskins ... .. | 609,233 pieces   | 71,507            |
| Dried goatskins ... ..  | 1,416,666 pieces | 314,994           |
|                         |                  | <u>£1,057,197</u> |

A marked improvement was shown in the territory generally in the quality of products coming forward for export, the proportion of ground dried hides and skins being almost halved as compared with the previous year.



With the lifting of all controls on the production and sale of clarified butter and ghee, it has not been possible to keep records of production. It is believed, however, that the industry has suffered from the competition of cheaper imported vegetable ghees.

Milk supplies from Government dairies at the coast again increased. The dairies in Dar es Salaam and Tanga were placed on a self-financing basis at the end of June, and are now run on commercial lines.

#### FORESTRY

During the year 1955, a further 3,012 square miles of forest reserves were declared, bringing the total area of forests under reserves, territorial and local authority, to 27,126 square miles or 7.9 per cent of the total land and swamp area of the territory. Forest Department plantations were increased by 1,500 acres to a total of 21,000 acres. Local authority plantations, mainly of fuel and pole species, were increased by approximately 400 acres.

There were 37 forest concessions in operation, 32 for the production of timber, 4 for firewood and poles, and one for baobab fibre.

The largest producers of timber were again Kagera Sawmills Ltd., Grewals Sawmills Ltd. and Steel Brothers Ltd. The output of timber was approximately 46,000 tons, an increase of 6,000 tons over 1954. Of this output 20,420 tons were exported.

#### Beeswax

Three hundred tons of beeswax had been exported up to the end of October at an average value of £466 per ton f.o.b. the corresponding figures for the whole of 1954 were 285 tons and £430 respectively.

#### COLONIAL INSECTICIDE AND HERBICIDE RESEARCH

The Colonial Insecticide Research Unit based at Arusha continued its experiments on the control of various pests of medical and veterinary importance, chiefly tsetse flies and mosquitoes, and in the use of defoliants, arboricides and herbicides under tropical conditions. The unit co-operated with the East African Malaria Institute in a large scale malaria eradication scheme in the Pare District. The Colonial Agricultural Insecticide Research Unit based, until December, at Ilonga continued experiments on the application of insecticides to pests of tropical agriculture with particular reference to cotton pests.

Ninety-six per cent of the total expenditure was met from the Central Research Allocation of the Colonial Development and Welfare funds. The rest was made up of equal contributions from Government and the Lint and Seed Marketing Board towards the experiments at Ilonga.

#### MINING

The salient features of the year were an increase of nearly half a million pounds sterling in the value of mineral production, and the advent of the sky prospector with airborne scintillometer in an intensified search for radioactive minerals.

Although there was no appreciable increase in the value of the country's diamond output, the total value of all minerals produced is expected to be approximately £5½ million when outstanding smelter returns and account sales are received and finalized. Thus, the steady annual increase from just under £2,000,000 in 1951, which has resulted in each succeeding year setting a new high record, has been maintained. There is every indication that it will be more than maintained during the coming year.

The principal factor in the 1955 increase was the bringing into service in May of the new 1,300-ton a day plant of Uruwira Minerals Ltd. at Mpanda Mine, Western Province. This resulted in the production of lead-copper concentrates being almost doubled: 8,822 metric tons were exported valued provisionally at £790,000 compared with 4,694 tons which realised £396,879 in the previous year.

Notes on other minerals in production follow and a comparative table giving details of exports is attached. It is emphasised that the 1955 figures are provisional: final statistics will be contained in the Annual Report of the Department of Mines when published.

#### *Diamonds*

Production was maintained at the same level as that of the previous year. Exports were slightly lower but the value realised was a little higher owing to an increase in the price of rough early in the year. Construction of the new recovery plant of Williamson Diamonds Ltd. at Mwadui Mine to treat 7,000 to 7,500 tons of gravel a day continued, but due to various hitches fell behind schedule. It is now expected that it will come into full operation early in 1956.

#### *Gold*

The production of gold from reef and alluvial sources (as distinct from the by-product obtained in smelting the Mpanda lead-copper ore which contains gold and silver) was slightly lower, mainly on account of a contraction of output from declining reef sources in the Lupa Goldfield.

Elsewhere, output was maintained. At Geita Mine, the largest gold mine in East Africa, satisfactory development continued, production was increased and a new orebody discovered.

At the end of the year a decision was awaited as to whether Kiabakari Mine in Musoma District should be equipped for production. At this property exploratory development by Tangold Mining Co. Ltd., a company owned jointly by New Consolidated Gold Fields and the Colonial Development Corporation, has been in progress for some time.

#### *Mica*

Interest in this mineral (which occurs in seven out of the eight administrative provinces of Tanganyika) abated somewhat owing to increasing costs and a rather lower average price for the smaller sizes.

The Uluguru Mica Mining Co-operative Society Ltd., all members of which are Africans, had a successful year and produced 17½ tons of sheet mica. The society sold 14.35 tons valued provisionally at £14,050.

Territorial exports amounted to 65 tons of sheet and splittings valued at £68,083. Of this quantity a little over 10 tons, worth approximately £12,000, were consigned to the United States. In addition, a market was found for 274 tons of waste mica which realised £2,739.

## *Tin and Tungsten*

Early in the year, Kyerwa Syndicate Ltd., one of the principal tin producers, suspended production in favour of a large scale development programme. The object of this was to ascertain whether the installation of a plant to treat 1,000 tons of ore a day would be justified. In spite of this, exports of tin concentrates from the Karagwe Tinfield, Bukoba District, showed a slight increase over those of 1954.

The Colonial Development Corporation, the other principal producer, continued surface and underground operations on a restricted scale within their 5,732-acre special mining lease, but decided to close down from the end of the year. This decision has dealt a serious blow to the immediate prospects of the tinfield.

The two small tungsten (wolfram) mines operating in the Karagwe Tinfield took advantage of an improvement in the price of the metal and production was doubled.

## OTHER MINERALS

### *Gypsum, Magnesite, Meerschaum and Salt*

There were appreciable increases in exports of gypsum, magnesite, meerschaum and salt. Gypsum is mined at Mkomasi on the Tanga-Moshi railway and is exported to Kenya and Uganda for use in the cement making industry.

Magnesite and meerschaum are mined in the Northern Province for export to Kenya. The first mentioned mineral is used in the chemical industry and for crushing into "terrazo chippings"; the second is manufactured into tobacco pipes and other articles of commerce in a Nairobi factory.

Salt production at the coastal salt pans and inland works amounted to 23,898 tons, a new high record, but was out-stripped by demand which totalled 25,670 tons, the shortfall in production being made good from reserve stocks. The greater part of this was consumed in the territory, but exports amounting to 9,498 tons were made to the Belgian Congo, Kenya, Uganda, Northern Rhodesia and Nyasaland. Total value of local sales and exports was £212,856.

### *Coal*

Seven hundred and eighty-five tons of coal were mined from a private claim in the Kivira-Songwe coalfield near Tukuyu, and supplied to near-by tea factories and other consumers. A detailed geological investigation of the coal-field was commenced in July by the Colonial Development Corporation with a view to ascertaining its potentialities as a possible source of supply for the Mbeya pyrochlore deposit. If a colliery were established in this field it would be in a position to supply both local demand and Nyasaland. Government is in touch with the authorities in the U.K. with a view to the possible exploration of the Ngaka coalfields.

### *Pyrochlore*

Early in the year a special exclusive prospecting licence over an area of 90 square miles including the Panda Hill pyrochlore deposits near Mbeya was granted to the Mbeya Exploration Co. Ltd. This company is incorporated in Tanganyika and owned jointly by the N.V. Billiton Maatschappij and the Colonial



Development Corporation, the controlling interest being held by the first named company. The deposits, which are a source of niobium metal, were discovered and investigated initially by the Geological Survey of Tanganyika. Subsequent work by the company, carried out in a rapid and efficient manner, has confirmed the original conclusion that this is likely to prove an important discovery. By the end of the year, the company had decided to embark on the second stage of their operations—the erection of a pilot mill.

Another discovery of pyrochlore by the Geological Survey at Ngualla to the north of Lake Rukwa in the Chunya District, was under application at the end of the year for the grant of exclusive prospecting rights to the Anglo-American Prospecting Company (Africa) Ltd.

#### *Radio-Active Minerals*

An important legislative measure enacted during the year repealed the Radio-Active Minerals Ordinance. Irksome restrictions on the prospecting for, and development of, deposits of these minerals were thereby removed without impairing in any way full governmental control over exports. Minerals of this nature are now on precisely the same footing under the Mining Ordinance as other minerals.

Preliminary prospecting surveys for radio-active minerals were carried out by two companies and a private individual using airborne scintillometers. The individual mentioned, using an old Auster aircraft purchased secondhand, at a price less than that of the scintillometer which it carried, rather captured the imagination as being the modern version of the old-time lone prospector. Another interesting point is that his operations are the only ones that have so far resulted in application being made for exclusive prospecting licences over localized areas.

It is worthy of note that in order to encourage airborne scintillometer surveys the Mines Department is prepared to receive applications for the temporary exclusion of specified tracts of country from prospecting for radio-active minerals by persons other than the applicant, in order that while the applicant is conducting a preliminary search from the air where his movements are visible to all, he shall not run the risk of having areas on which he may be concentrating "jumped" by observers watching him from the ground.

#### *Materials for Cement Manufacture*

At Wazo Hill, 13 miles north-west of Dar es Salaam, the Tanganyika capital and principal port, a deposit of limestone and other materials suitable for the manufacture of cement was discovered by the Geological Survey. Firms interested in acquiring the quarrying rights and establishing a cement works were invited to communicate with the Commissioner for Mines, Dar es Salaam.

#### *Mineral Oil*

Prospecting operations by D'Arcy/Shell Petroleum Development Company of Tanganyika Ltd. under their oil exploration licence were actively pursued throughout the year, both on the mainland and on the island of Mafia. Drilling operations in a deep test well on Mafia, which commenced on 17th December 1954, were concluded at the end of 1955 at a depth of 11,051 feet. This is believed to be the deepest borehole in Africa and has yielded valuable geological information. Operations on the mainland are continuing. The exploration licence covers an amended area of just under 20,000 square miles of the Tanganyika littoral, coastal waters and islands.

## Mining Titles

At the close of the year there were current 11 exclusive prospecting licences aggregating 236 square miles, one oil exploration licence in respect of approximately 19,900 square miles, and 2,025 mining claims and leases covering a further 390 square miles.

## Labour

An average of approximately 16,433 Africans, 285 Asians and 605 Europeans were directly employed in mining and prospecting throughout the year. No serious labour disputes were recorded.

### MINERALS EXPORTED (DOMESTIC PRODUCTION) 1955

| Mineral                   | Unit  | 1954<br>(Actual Figures) |           | 1955<br>(Provisional Figures) |           |
|---------------------------|-------|--------------------------|-----------|-------------------------------|-----------|
|                           |       | Quantity                 | Value     | Quantity                      | Value     |
|                           |       |                          | £         |                               | £         |
| Diamonds ...              | (car) | 329,912                  | 3,107,241 | 322,661                       | 3,188,682 |
| Gold (refined)* ...       | (Oz)  | 71,447                   | 891,807   | 68,892                        | 864,279   |
| Gypsum (raw) ...          | (LT)  | 4,440                    | 9,955     | 8,223                         | 16,916    |
| Kaolin ...                | (MT)  | 260                      | 2,483     | 46                            | 507       |
| Lead concentrates ...     | (MT)  | 4,694                    | 396,879   | 8,822                         | 790,000   |
| Lime ...                  | (LT)  | 870½                     | 4,139     | 955                           | 4,471     |
| Magnesite ...             | (LT)  | 78                       | 316       | 328                           | 820       |
| Meerschaum (crude) ...    | (LT)  | 1·86                     | 94†       | 4·50                          | 227       |
| Mica (sheet) ...          | (LT)  | 78                       | 74,503†   | 65                            | 68,083    |
| Mica (waste) ...          | (LT)  | 28                       | 523       | 274                           | 2,739     |
| Salt ...                  | (MT)  | 6,866                    | 68,828    | 9,498                         | 90,207    |
| Silver (refined)* ...     | (Oz)  | 42,205                   | 12,927    | 43,292                        | 13,990    |
| Tin concentrates ...      | (LT)  | 54                       | 27,330    | 55                            | 28,114    |
| Tungsten concentrates ... | (LT)  | 12                       | 8,301     | 24                            | 17,625    |
| Uranium Ore ...           | (LT)  | 0·05                     | 146       | —                             | —         |
| Total ...                 |       | —                        | 4,605,472 | —                             | 5,086,660 |

\* Excludes gold and silver contained in lead concentrates.

† Provisional.

Oz. Troy ounces.

car. Metric carats.

LT Long tons.

MT Metric tons.

NOTE: In addition to the above exports there were produced and sold in Tanganyika during 1955, 16,172 tons of salt valued at £122,649; 4,928 tons of lime valued at £15,524; and building minerals to an estimated value of £238,334. Local sales of other minerals amounted to approximately £1,887.

PROVISIONAL TOTAL ... £5,465,054  
(Exports and local sales)

## GEOLOGICAL SURVEY DEPARTMENT

There was some scaling down of the overall effort on account of staff considerations but the position was improved by the arrival of three new geologists at the end of the year.

As forecast in H.E. the Governor's Budget Speech, more time was spent in preparation of arrears of field mapping for publication; some 20 quarter degree sheets are in the stage of final planning.

A general steady contribution to knowledge of mineral resources has been made rather than spectacular discoveries.



The cement materials investigation was completed by the publication of a report on the Wazo Hill deposits, near Dar es Salaam; over one hundred requests for copies of the report were received. A second area containing suitable materials has been located some 25 miles north of the Central Line, between Dar es Salaam and Morogoro.

Investigation was continued of deposits of various minerals along the three railway lines and efforts in this connection have been increased in the Southern Province.

With the appearance of several bulletins on various occurrences, publication of the information available on the subject of coal in the territory has been brought up to date.

Considerable assistance in the examination of proposed dam sites has been given to the U.N.O. Team engaged in surveys of the Rufiji Basin and other authorities.

Further interest in the territory by large mining concerns has led to the growth of consultative work in the Department, and appropriate assistance has been given where this has been sought. Most of the principal mines have been visited. Attention has been paid to the possibility of renewing alluvial gold mining in the Lupa Goldfield.

#### INDUSTRY

Although no new projects were developing on a major scale during 1955, the year saw the continuation of the steady expansion of processing industries. Manufacturing industries are still largely confined to the processing of raw materials, either for local consumption or for export, and include sisal processing, cotton ginning, coffee and tobacco curing, tea manufacture, oil and flour milling, meat canning, tanning and the manufacturing of leather goods, fruit juice extraction, dairy industries, brick and tile works, and furniture making.

The Milling Board, established under the Milling Ordinance and made responsible for the control and licensing of mills and the orderly promotion and development of the industry, met regularly throughout the year. Licences for new mills were issued in various parts of the territory. The territory now possesses over 300 mills, of which about 150 are engaged in the milling of rice or oil seeds, and oil seed milling continues to absorb a large proportion of the crop each year. A new maize flour mill, with a capacity of 70 tons a day, the largest in Tanganyika, was opened in Tanga whilst, with the increase in the cotton crop, there was added interest in cotton ginning, and 34 ginneries were in operation.

The importance of the timber industry, both domestically and for export, in the economy of the territory, continued to increase in 1955. There was a development of the programme of reserves and plantations to cater for the growing demand for fuel and building material and the controlled cutting for export. Export of wattle bark began from the Colonial Development Corporation wattle bark factory in Njombe, which draws its supplies, not only from its own plantations, but also from Government encouraged African planting. The export of mangrove bark for tanning continued from the coast, especially from the Rufiji Delta and from the Southern Province.

The canning of meat at Tanganyika Packers Ltd. continued during the year and there was a growing activity in the canning and bottling trade generally.



A secondary industry, which is perhaps not appreciated as much as it might be, is the building, furniture and repair trade, between them employing about 50,000 workmen. The estimated value of buildings erected in 1955 was £5 million.

Other industries not directly concerned with the initial processing of raw materials include the manufacture of textiles, tin cans and containers, oxygen and allied products, paint and varnishes, breweries, soap factories, coir matting, macaroni, and printing works.

Production at the Dar es Salaam, paint factory, which serves the East African market, reached some 2,400 tons. The manufacture of metal containers is now a firmly established and expanding industry, and produced 13½ million food cans in 1955. The oil companies are turning their attention to bulk supplies and one manufacturer of containers is now successfully supplying underground tanks and road tankers (on imported chassis) for the purpose. The same manufacturer is also supplying structural steelwork, mining headgear, and machinery for sisal estates. A coir matting factory established in 1954 is now expanding its market both outside and inside East Africa.

The policy of encouraging the establishment and growth of secondary industries by means of granting, in appropriate cases, refunds of customs duty on raw materials imported for local manufacture, continued during the year. This policy also received stimulation by the decision to appoint a Commissioner for Commerce and Industry to ensure that private enterprise is given the fullest opportunity to expand trade and industry.

The establishments registered under the Factory Ordinance as at 31.12.1955 were as follows:—

| Industry                                         | Number of Factories |          | Total |
|--------------------------------------------------|---------------------|----------|-------|
|                                                  | With Power          | No Power |       |
| Aerated Water Manufacture ... ..                 | 30                  | 21       | 51    |
| Agricultural Plant Maintenance and Repair ... .. | 60                  | —        | 60    |
| Aircraft Maintenance ... ..                      | 1                   | 1        | 2     |
| Aluminiumware Manufacture ... ..                 | 2                   | 1        | 3     |
| Bacon Manufacture ... ..                         | 3                   | —        | 3     |
| Bicycle Assembly and Repairs ... ..              | —                   | 25       | 25    |
| Boat Building and Repairing ... ..               | 5                   | 2        | 7     |
| Bread and Flour Confectionery ... ..             | 23                  | 56       | 79    |
| Breweries ... ..                                 | 1                   | —        | 1     |
| Brick and Tile Manufacture ... ..                | 4                   | 4        | 8     |
| Can Manufacture ... ..                           | 1                   | —        | 1     |
| Cashew Nut Processing ... ..                     | 1                   | 2        | 3     |
| Chemical Products Manufacture ... ..             | 1                   | —        | 1     |
| Coffee Curing ... ..                             | 9                   | —        | 9     |
| Coffee Pulping ... ..                            | 82                  | 32       | 114   |
| Coir Fibre Processing ... ..                     | 3                   | 1        | 4     |
| Copra Drying ... ..                              | 2                   | 2        | 4     |
| Cotton Ginning ... ..                            | 34                  | —        | 34    |
| Cotton Weaving ... ..                            | 1                   | —        | 1     |
| Crop Processing ... ..                           | 10                  | 1        | 11    |
| Dairy Produce ... ..                             | 1                   | 2        | 3     |
| Dry Cleaning ... ..                              | 1                   | 1        | 2     |
| Edible Oil Refining ... ..                       | 5                   | —        | 5     |

(contd.)

| Industry                                  | Number of Factories |          | Total |
|-------------------------------------------|---------------------|----------|-------|
|                                           | With Power          | No Power |       |
| Electrical Repairs ...                    | 12                  | -        | 12    |
| Electrical Power Generation ...           | 20                  | -        | 20    |
| Electro-Plating ...                       | 1                   | -        | 1     |
| Engineering General ...                   | 67                  | 6        | 73    |
| Essential Oil Extraction ...              | 4                   | -        | 4     |
| Fez Cap Manufacture ...                   | -                   | 4        | 4     |
| Fish Curing ...                           | 1                   | 1        | 2     |
| Flour Milling ...                         | 289                 | -        | 289   |
| Food Canning ...                          | 8                   | -        | 8     |
| Fruit Cordial Manufacture ...             | 3                   | 1        | 4     |
| Gunsmith—Gun Repairing ...                | 1                   | -        | 1     |
| Hides and Skins Processing and Baling ... | 4                   | 29       | 33    |
| Honey Processing ...                      | 1                   | -        | 1     |
| Ice Manufacture ...                       | 9                   | -        | 9     |
| Industrial Gas Manufacture ...            | 2                   | -        | 2     |
| Iron and Steel Rolling Mill ...           | 1                   | -        | 1     |
| Jaggery Manufacture ...                   | 44                  | -        | 44    |
| Jewellers and Goldsmiths ...              | 2                   | 22       | 24    |
| Kapok Ginning ...                         | 10                  | 1        | 11    |
| Laundrying ...                            | 3                   | 3        | 6     |
| Leather Goods Manufacture, etc. ...       | 3                   | -        | 3     |
| Letter Press Printing ...                 | 25                  | 1        | 26    |
| Locomotive and Rolling Stock Repairs ...  | 14                  | -        | 14    |
| Macaroni—Paste Making ...                 | 1                   | -        | 1     |
| Marine Engineering ...                    | -                   | 2        | 2     |
| Mica Cutting and Grading ...              | 1                   | 2        | 3     |
| Milk Pasteurizing ...                     | 1                   | -        | 1     |
| Motor Vehicle Repairing ...               | 134                 | 40       | 174   |
| Paint-Manufacture ...                     | 1                   | -        | 1     |
| Papain Manufacture ...                    | -                   | 3        | 3     |
| Petrol, Oil and Lubricants Packing ...    | 5                   | 6        | 11    |
| Pharmaceutical Manufacture ...            | 1                   | -        | 1     |
| Photographic Developing and Printing ...  | 8                   | 2        | 10    |
| Pre-Cast Concrete Works ...               | 5                   | -        | 5     |
| Pyrethrum Drying ...                      | -                   | 1        | 1     |
| Rice Mills and Hulleries ...              | 67                  | -        | 67    |
| Rubber Processing ...                     | 1                   | 1        | 2     |
| Saw Milling ...                           | 83                  | -        | 83    |
| Sewage Pumping ...                        | 2                   | -        | 2     |
| Sheet Metal Work ...                      | 2                   | 16       | 18    |
| Ship Breaking ...                         | 1                   | -        | 1     |
| Shoe Making and Repairing ...             | 2                   | 108      | 110   |
| Sisal and Sansevieria Processing ...      | 232                 | -        | 232   |
| Soap Manufacture ...                      | 30                  | 24       | 54    |
| Stone Grading and Crushing ...            | 5                   | -        | 5     |
| Sugar Confectionery ...                   | 2                   | -        | 2     |
| Sugar Manufacture ...                     | 1                   | -        | 1     |
| Tailoring and Dress Making ...            | 32                  | 759      | 791   |
| Tanneries ...                             | 2                   | -        | 2     |
| Tea Manufacture ...                       | 11                  | -        | 11    |
| Textile Dyeing and Bleaching ...          | 1                   | -        | 1     |
| Tobacco Processing ...                    | 12                  | 9        | 21    |
| Toilet Goods (Other Than Soap)...         | -                   | 3        | 3     |
| Typewriter and other Light Repairs ...    | 2                   | 3        | 5     |
| Tyre Re-treading ...                      | 3                   | -        | 3     |
| Vegetable Oil Extraction ...              | 80                  | -        | 80    |
| Watch Repairing ...                       | 1                   | 6        | 7     |
| Water Supply ...                          | 92                  | -        | 92    |
| Wood Working—General ...                  | 204                 | 50       | 254   |
| Wrought Iron Works ...                    | 5                   | -        | 5     |
| Total ...                                 | 1,834               | 1,255    | 3,089 |







## NET IMPORTS AND EXPORTS—(contd.)

£'000

| Classification of Domestic Exports                      |  |  |  |  | 1948   | 1953   | 1954   | 1955   |
|---------------------------------------------------------|--|--|--|--|--------|--------|--------|--------|
| Food, beverages and tobacco (a) coffee, not roasted ... |  |  |  |  | 877    | 5,819  | 10,003 | 6,905  |
| (b) other ...                                           |  |  |  |  | —      | 3,095  | 2,970  | 4,109  |
| Hides and skins ...                                     |  |  |  |  | 470    | 1,654  | 1,531  | 1,235  |
| Oil seeds, etc. ...                                     |  |  |  |  | 554    | 1,101  | 1,354  | 1,721  |
| Wood, etc. ...                                          |  |  |  |  | 139    | 343    | 31     | 410    |
| Cotton ...                                              |  |  |  |  | 1,328  | 4,827  | 3,3    | 5,534  |
| Sisal fibre and tow ...                                 |  |  |  |  | 8,930  | 12,773 | 10,90  | 9,956  |
| Metalliferous ores ...                                  |  |  |  |  | 52     | 518    | 398    | 664    |
| Diamonds ...                                            |  |  |  |  | 1,040  | 1,766  | 3,107  | 3,189  |
| Gold ...                                                |  |  |  |  | 499    | 904    | 901    | 864    |
| Other ...                                               |  |  |  |  | —      | 1,411  | 1,323  | 1,601  |
| Total ...                                               |  |  |  |  | 15,050 | 34,211 | 36,229 | 36,188 |
| Value of Imports from                                   |  |  |  |  | 1948   | 1953   | 1954   | 1955   |
| United Kingdom ...                                      |  |  |  |  | 10,574 | 13,417 | 13,720 | 17,791 |
| India ...                                               |  |  |  |  | 1,827  | 3,071  | 4,799  | 3,633  |
| Hong Kong ...                                           |  |  |  |  | —      | 537    | 1,362  | 1,092  |
| South Africa ...                                        |  |  |  |  | 880    | 1,891  | 1,521  | 1,484  |
| U.S.A. ...                                              |  |  |  |  | 2,961  | 2,023  | 1,030  | 1,226  |
| Japan ...                                               |  |  |  |  | 123    | 132    | 300    | 4,262  |
| Belgium ...                                             |  |  |  |  | 649    | 258    | 711    | 1,416  |
| West Germany ...                                        |  |  |  |  | 12     | 990    | 1,575  | 2,664  |
| Italy ...                                               |  |  |  |  | 485    | 728    | 957    | 1,039  |
| Netherlands ...                                         |  |  |  |  | —      | 962    | 1,160  | 1,425  |
| Other ...                                               |  |  |  |  | —      | 4,418  | 4,827  | 7,499  |
| Total ...                                               |  |  |  |  | 20,110 | 28,427 | 31,962 | 43,531 |
| Value of Exports to                                     |  |  |  |  | 1948   | 1953   | 1954   | 1955   |
| United Kingdom ...                                      |  |  |  |  | 8,471  | 13,559 | 12,717 | 13,244 |
| India ...                                               |  |  |  |  | 753    | 1,995  | 1,866  | 1,770  |
| South Africa ...                                        |  |  |  |  | 710    | 1,019  | 959    | 799    |
| Canada ...                                              |  |  |  |  | 1,235  | 639    | 1,091  | 671    |
| U.S.A. ...                                              |  |  |  |  | 1,146  | 5,616  | 4,813  | 3,451  |
| Japan ...                                               |  |  |  |  | 121    | 452    | 434    | 1,597  |
| Belgium ...                                             |  |  |  |  | 12     | 1,480  | 1,360  | 2,014  |
| West Germany ...                                        |  |  |  |  | —      | 2,208  | 3,563  | 2,740  |
| Italy ...                                               |  |  |  |  | —      | 576    | 1,549  | 1,254  |
| Netherlands ...                                         |  |  |  |  | —      | 1,358  | 1,712  | 2,077  |
| Other ...                                               |  |  |  |  | —      | 5,309  | 6,225  | 6,571  |
| Total ...                                               |  |  |  |  | 15,050 | 34,211 | 36,229 | 36,188 |
| Value of Re-exports ...                                 |  |  |  |  | 324    | 1,391  | 1,545  | 1,214  |

## VISIBLE BALANCE OF EXTERNAL TRADE

|          | Net Imports | Domestic Exports and Re-exports | Deficit | Surplus |
|----------|-------------|---------------------------------|---------|---------|
| 1948 ... | 20,110      | 15,374                          | 5,163   | —       |
| 1953 ... | 28,427      | 39,994                          | —       | 7,515   |
| 1954 ... | 31,962      | 37,795                          | —       | 5,833   |
| 1955 ... | 43,531      | 37,402                          | 6,129   | —       |

NOTE: In 1949 and 1950 important changes took place in the methods of classifying and valuing trade. The 1948 figures in the above table have, however, been adjusted as far as possible to be on a comparable basis with those of later years.

Transfers between Tanganyika and Uganda and Kenya of East African produce for internal consumption are excluded throughout. 1955 figures are, in all cases, provisional.

## APPENDIX I

### COLONIAL DEVELOPMENT AND WELFARE GRANTS: (£4,000,000 ALLOCATION)—PROGRESS REPORTS

#### RUFJI BASIN SURVEY *Scheme No. D. 2,020*

|                                           | £       |
|-------------------------------------------|---------|
| Amount of Grant ... ..                    | 359,250 |
| Total Expenditure to 31.12.55 ... ..      | 120,226 |
| Amount of grant earned to 31.12.55 ... .. | 120,226 |

The work of the Rufiji Basin Survey during 1955 comprised the following lines of reconnaissance, studies, investigations and design:—

1. Topographical surveys aided by aerial photography and photogrammetry.
2. Hydrological work comprising construction of hydrometric and meteorological stations, river discharge measurements and various gauge recordings.
3. Geological survey comprising selection of geologically suitable sites and preparation of reports coupled with attempts to obtain information on seismology for dams.
4. Soil survey comprising also soil chemical analyses and physical properties for irrigation agriculture.
5. Engineering work, including engineering surveys, design and construction for trial farms.
6. Agricultural work.
7. Team Leader's reconnaissance and opening up of jeep tracks.

Field work was delayed due to continuance of the rains late in the season and also due to delays in the arrival of personnel. In particular difficulties experienced in aerial photography and hydrological work made it impossible to complete the entire 1955 programme although other sections such as geological, soils and the Team Leader's reconnaissance reached their target.

During the first half of 1955; headquarters, administrative, and financial arrangements for the survey were entrusted to the Water Development Department. In the second half of the year the administration of the survey was taken over by the Tanganyika Agricultural Corporation under an agreement entered into with the Tanganyika Government.

#### TOPOGRAPHICAL SURVEY

##### (a) *Storage Sites*

Survey teams carried out field work on the Stiegler's Gorge reservoir site during October and November. The object was to prepare a contour map based on aerial photography to a scale of 1: 20,000 with vertical interval of 20 feet for estimation of the reservoir capacity for the site known as No. 2 near the entrance to Pangani Rapids. This site was selected by a reconnaissance party



the previous year from a choice of five as it was preferred by the geologist. All ground control for existing photography was completed. The survey was, however, not finalised during the season owing to difficulty in obtaining satisfactory photographic cover for the photogrammetrist. The area, in common with others in the basin, is renowned for extensive cloud formation and bad visibility throughout most of the year. A similar survey was carried out at Swero on the Kilombero Valley about 25 miles below Ifakara during December. In addition a survey of the large Mtera reservoir was completed and visited by the geologist. All these sites are ready for reconnaissance type of design and study of economics and an F.A.O. specialist team will be placed in the area during 1956.

(b) *Trial Farms*

Contour surveys were carried out at both the Mtanza and Bohoro trial farm sites. Final designs and construction will be completed during 1956.

(c) *Aerial Photography*

Only limited aerial photography was possible during the year owing to both lack of aircraft and bad photographic conditions.

(d) *Photographic Plotting*

Only preparatory work was carried out during the year.

### HYDROLOGICAL WORK

One F.A.O. hydrologist arrived during the second half of the year and was occupied in assisting the Water Development Department with constructional work and the training of necessary staff. Owing to staff difficulties it was only possible to erect one recorder during the year and as a result the floods which occurred at the end of the period were only partly recorded. Observers took a number of river discharge measurements and gauge recordings. The isolation of the hydrometric stations in the basin makes the supervisory work difficult and expensive.

### GEOLOGICAL SURVEYS

(a) *Geology*

Excellent progress was achieved on the geological reconnaissance by the Geological Department. Advice was received and selection advanced on the following storage sites:—

| <i>Sites examined</i>  |     |     |     |     | <i>Report</i>   |
|------------------------|-----|-----|-----|-----|-----------------|
| Stiegler's Gorge       | ... | ... | ... | ... | In preparation. |
| Swero                  | ... | ... | ... | ... | Received.       |
| Lumemo                 | ... | ... | ... | ... | "               |
| Mtera                  | ... | ... | ... | ... | In preparation. |
| L. Ruaha (near Iringa) | ... | ... | ... | ... | "               |
| Upper Mbarali          | ... | ... | ... | ... | Received.       |
| " Kimani               | ... | ... | ... | ... | In preparation. |
| " Great Ruaha          | ... | ... | ... | ... | "               |

(b) *Seismology*

Advance enquiries were initiated with a view to attempting extrapolation to Rufiji Basin dam sites of the records of the Belgian Congo and South African seismographs as East Africa unfortunately has only one old instrument which is not reliable.



## SOIL SURVEYS

A soil survey of about 5,000 acres on the Bohoro Flats, a portion of the Kilombero Valley and the Mtanza and Ndundu trial farms was completed. Delay in laboratory work was experienced through shortage of staff, but the detailed analysis of the Lower Rufiji area studied during 1954 was completed. The soil physicist of E.A.A.F.R.O. visited both Mtanza and Ndundu trial farms during the year.

## ENGINEERING WORK

The engineering survey was carried out on both Mtanza and Bohoro farms and was followed by designing and construction in the case of Mtanza. Owing, however, to the continuation of the rains it was not possible to enter Mtanza farm until September and as a result the construction works were not completed before the rains commenced at the end of the year.

## TEAM LEADER'S RECONNAISSANCE

The Team Leader carried out a reconnaissance in September in company with Mr. A. de Vajda, the F.A.O. Land and Water Use Specialist, a member of the Geological Department and other staff of the survey team, to investigate a number of potential dam and storage sites which had been selected by aerial survey. The party selected a number of sites which will receive further studies. During the early floods the Team Leader also visited the Usangu Plains and the Pawaga area and selected a number of hydrometric sites and potential sites for future trial farms. A map of existing game and timber tracks was compiled for future work in the district, much of which appears promising for development.

### *Scheme No. D. 2330—Hydrographic and Topographic Survey*

|                                              | £      |
|----------------------------------------------|--------|
| Amount of Grant ... ..                       | 31,000 |
| Total Expenditure to 31.12.55 ... ..         | 3,000  |
| Amount of grant earned up to 31.12.55 ... .. | 3,000  |

There are large areas of fertile land in Tanganyika suitable for the production of rice. But the development of such areas must depend upon adequate knowledge of soil and water supplies, provision of communications to the centres of demand and the availability of labour or peasant settlers. The first requirement in all the areas selected for investigation is a complete aerial reconnaissance survey and mapping. The second will be for the local irrigation engineers to select areas for pilot and development schemes. These selected areas will then require detailed survey on the ground. The area chosen for irrigation, after an initial coverage of 1/50,000 scale mapping with 25 feet vertical intervals and later close contouring of specific areas, was that contained inside 35° to 36° East and 5° to 6° South, covering approximately 5,000 square miles. The triangular break-down over the area from the primary chain on the Eastern edge is under way, and 29 stations have been reconnoitred; 18 stations placed and 8 stations observed. Bilby towers will be required at two sites so far. One dam site has been investigated.

### *Scheme No. D. 2494—Construction of District Hospital, Newala*

|                                           | £      |
|-------------------------------------------|--------|
| Amount of grant ... ..                    | 30,000 |
| Total expenditure up to 31.12.55 ... ..   | 886    |
| Amount of grant earned to 31.12.55 ... .. | 805    |

It is Government's policy to provide medical facilities at the headquarters of districts wherever possible. In Newala District, apart from a leprosarium near Newala, there is at present only a small mission hospital at Newala itself, which is supervised by a doctor residing some 20 miles away. It is obviously impossible for the mission to extend their services to meet the full needs of this prosperous district, which has a population of approximately 160,000. There is already in the district a comprehensive system of dispensaries both mission and Government, and the proposed hospital would serve as a focus for the work of these dispensaries, and a source of dissemination of better medical practice. The leprosarium which has no qualified practitioner will similarly benefit.

The hospital will have four 12-bed wards, an 8-bed isolation ward, an operating theatre, a medium sized kitchen, a laboratory block, an outpatients administrative block and five institutional houses for key staff.

The site for this hospital has been selected and work by direct labour has just commenced.

*Scheme No. D. 2495—Trade Schools, Moshi and Ifunda*

|                                              | £       |
|----------------------------------------------|---------|
| Amount of grant ... ..                       | 328,875 |
| Total expenditure to 31.12.55 ... ..         | 9,611   |
| Amount of grant earned up to 31.12.55 ... .. | 7,208   |

The economic development of Tanganyika in the past has been hampered by the lack of skilled artisans to form the link between the trained personnel imported from overseas and the indigenous worker. To fill this gap in the commercial and industrial life of the country it is intended to establish two trade training schools. One such school is already in being at Ifunda, but is not yet completed. This together with the second which it is now desired to construct at Moshi should meet the territory's need for workers of the skilled artisan type in sufficient quantities for the foreseeable future.

Both these trade schools will be fully boarding and will select their students on a territorial basis from pupils who have successfully completed the middle school course, i.e. to Standard VIII. Each school will have an annual intake of 200 students with a total student body of 600 over the 3-year course. The teaching space will consist of workshops, administration bays, classrooms, science laboratories and practical science administration units.

During the period under review the building capacity was utilized almost entirely on building Phase I of the programme, i.e. that programme of construction at both schools which was being financed directly by the Tanganyika Government. At the Moshi Trade School work under Phase II was started on a classroom and library block, a science laboratory, a dining room and kitchen, a dispensary and an administrative unit, while at Ifunda work was commenced on the new water supply.

*Scheme No. D. 2441—Porotos Deviation*

|                                              | £       |
|----------------------------------------------|---------|
| Amount of grant ... ..                       | 273,600 |
| Total expenditure up to 31.12.55 ... ..      | 5,135   |
| Amount of grant earned up to 31.12.55 ... .. | 4,108   |



The existing road between Iringa and Mbeya passes over the volcanic soils of the Porotos Mountains, and has steep grades which vary between 1 in 6 and 1 in 10. The surface of the carriageway becomes loose and dusty during the long dry season when the road metal is displaced by heavy vehicles. While during the intense rains of this neighbourhood surface failures are extensive and the carriageway becomes unduly slippery for heavy vehicles to negotiate. The long climb causes heavy fuel consumption and engine wear in the larger vehicles, whilst the descent is frequently dangerous under wet conditions. Not only is the present alignment over the Porotos Mountains considered inadequate for present day traffic, but for a variety of reasons it is anticipated that the present vehicle density will rise considerably within the next few years.

A line which avoids the present road over the Porotos Mountains has been surveyed in detail, and the necessary designs have also been completed. The proposed new alignment which amounts to 32 miles of new road passes along the northern foothills of the mountains. The designers had to take into consideration the large run-off of water from the Porotos, and consequently provision for culverts and bridges has had to be on a scale considerably in excess of normal. The surface of the new 20-foot carriageway will be formed of gravel, and will be constructed to an all-weather standard. Gradients will not normally exceed 5 per cent except over short lengths, and curves will generally be kept to a minimum radius of 1,000 feet.

*Scheme No. D. 2500—Road Improvements*

*Great North Road—Arusha/Makuyuni Section*

|                                              | £       |
|----------------------------------------------|---------|
| Amount of grant ... ..                       | 220,000 |
| Total expenditure up to 31.12.55 ... ..      | 126,488 |
| Amount of grant earned up to 31.12.55 ... .. | 101,191 |

This section of the Great North Road now carries in the region of 400 vehicles a day; most of which are commercial types and many of them very heavy. It is an earth road over portions of which some stabilization has been carried out; but largely owing to the volcanic nature of the soil it has been found that the running surface cannot adequately be maintained, and it corrugates in the dry season and tends to fail in the rains. It is abundantly clear that in order to cater for the present and increasing volume of traffic nothing short of bituminization will achieve the necessary all-weather standard which is needed for this road. It is proposed therefore to bring this stretch up to an acceptable all-weather standard by providing a base course of adequate strength by gravelling and then to surface this with two coats of bitumen. In addition it is necessary to carry out minor realignments to the present formation at a number of points, and to provide gradually improved drainage.

Two bridges will have to be reconstructed and eight bridges entirely rebuilt. The road will have an 18-foot carriageway and curves will have a minimum radius of 1,000 feet. Gradients will not exceed 5 per cent except in one or two instances over short lengths and in difficult country. Site lines will not be less than 400 feet at a height of 3 feet 9 inches above the surface of the road.

Up to the end of the year 45 miles of earthworks had been completed out of a total mileage of 46. Twenty-two miles of this stretch had been gravelled and 16 surfaced with bitumen. Sixty-six culverts had been laid and 7 bridges completed. The remaining two bridges being 95 per cent and 85 per cent completed respectively.

*Scheme No. D. 2503—Outpatients Dispensary, Magomeni*

|                                              | £      |
|----------------------------------------------|--------|
| Amount of grant ... ..                       | 20,000 |
| Total expenditure up to 31.12.55 ... ..      | —      |
| Amount of grant earned up to 31.12.55 ... .. | —      |

The plans for improving medical and health facilities in Dar es Salaam include the provision of 5 outpatients' centres in various parts of the town as satellites to the general hospital. The first of these 5 outpatients' dispensaries, namely at Ilala and Mnazi Moja have now been completed and are functioning satisfactorily. The third one will be located in Magomeni where the African population is rapidly increasing.

The site for this dispensary has now been approved. Tenders for the building were called for, but it was considered that the prices quoted were too high, and they were rejected. Work is being put in hand by direct labour.

**RURAL WATER SUPPLIES**

|                                           | £       |
|-------------------------------------------|---------|
| Amount of grant ... ..                    | 256,400 |
| Total expenditure to 31.12.55 ... ..      | 34,370  |
| Amount of grant earned to 31.12.55 ... .. | 17,284  |

A part of the grant of £900,000 made from C.D. & W. funds under scheme D. 627 for the development of water supplies in Tanganyika in the development period 1945/55 was devoted to the provision of rural water supplies in co-operation with the native authorities. This scheme is intended to carry on these works during the 1955/60 period.

Scheme D. 627 originally provided for block grants to native authorities. During the progress of the scheme however it was possible to progress from a system of flat rate percentage contributions by native authorities to contributions differentiated according to certain factors, including the value of the supply to the increase of productivity and the assistance already received.

The general principle now adopted in assessing contributions by native authorities is that they should normally be expected to contribute the full cost of supplies. Assistance is given in those cases where it can be shown that the construction of the supply will raise productivity. Assistance is also given in other deserving cases, when the rate of contributions by the native authorities is assessed in relation to the authority's financial capacity, the extent to which it has received assistance in the past, and the extent to which it has previously financed supplies unaided. C.D. & W. assistance has been authorised for the following schemes during the period under review:

1. Kwamaligwa Dam.
2. Keni gravity pipeline.
3. Borehole pump, Matamondo School.
4. Pulambili Dam.
5. Hand pump installation, Gombero Minor Settlement.
6. Lulindi/Chiungutwa Pipeline.



## WATER DEVELOPMENT AND IRRIGATION

### *Scheme No. D. 2657*

|                                           | £       |
|-------------------------------------------|---------|
| Amount of grant ... ..                    | 451,890 |
| Total expenditure to 31.12.55 ... ..      | 94,318  |
| Amount of grant earned to 31.12.55 ... .. | 84,886  |

The extension of water supplies both in urban and rural districts in Tanganyika is of primary importance in the economic development of the territory, and an essential prerequisite for all schemes for increasing agricultural production and resettlement to relieve pressure in overpopulated areas.

The 1950/56 development plan allocated some £3½ million for the systematic development of water supplies. Towards this amount a grant of £290,000 was made from C.D. & W. funds under scheme D. 627. The first few years of the 1950/56 development plan were devoted to overtaking the backlog in the construction of rural supplies of all sorts. During the last two years steps have been taken to expand and reorganize the Water Development and Irrigation Department to increase its capacity, and to enable it to devote attention to irrigation. The funds provided under this new scheme are being used in continuation of scheme D. 627 to meet 90 per cent of the estimated expenditure incurred on buildings, surveys and irrigation.

The Department of Water Development and Irrigation is being expanded in the Southern Highlands, Lake, Southern and Tanga Provinces. Additional offices, workshops, garages and stores, etc., are required in these areas. Provision has also been included for construction camps on irrigation schemes.

The basis of all expansion is adequate survey so that advanced planning can take place. Provision has therefore been made to include all types of survey including both hydrographic and engineering surveys.

As regards irrigation, provision has been included for the actual construction cost of irrigation schemes, which in the first instance will be in selected village areas, but will later form part of the general development of various river valleys.

Considerable progress has been made with the construction of the depot at Ubungo, which is designed to provide accommodation for the project planning and designs section of the headquarters of the Department. Two framed sheds have been purchased and are in course of erection on the site, and an indent for a further five sheds of indential steel frame pattern have been ordered. With the opening up of a new division at Mbeya to serve the Southern Highlands Province, work has been put in hand on the construction of the necessary buildings. Funds have also been issued for the construction of irrigation field quarters in various strategic sites outside administrative centres.

Geophysical surveys have been undertaken where necessary for the location of borehole sites, and for the preparation of tentative estimates of the cost of drilling. The Luengera Valley survey was carried out by contract because of the lack of adequate departmental survey staff, and this has enabled a contour plan of 2,500 acres of irrigable area to be prepared so that the plan of three pilot irrigation schemes can be carried out.

The mechanical terracing of land in preparation for rice planting continued on the Mlali Irrigation Scheme.

*Scheme No. D. 2687—Technical Institute, Dar es Salaam*

|                                              | £       |
|----------------------------------------------|---------|
| Amount of grant ... ..                       | 102,750 |
| Total expenditure to 31.12.55 ... ..         | 1,365   |
| Amount of grant earned up to 31.12.55 ... .. | 1,024   |

The Technical Institute is intended to provide training for those inhabitants in Tanganyika who possess higher academic knowledge at the outset, and who therefore will be able to obtain sufficient knowledge in technical matters gradually to replace other persons of equivalent skills who at present have to be brought in from outside the country at very considerable cost.

The institute will be sited in Dar es Salaam and it is proposed that accommodation for 750 students will ultimately be provided. Under the present scheme accommodation for about 400 students is however planned. It is proposed that the Institute should have 6 classrooms, 2 science laboratories, 6 workshops, an art room, 2 drawing offices, a typing room and a large library with reference rooms to house technical books and journals. There will be hostel accommodation for 80 students, and at a later stage a lecture hall and administrative block will also be provided.

Sites have been obtained in good central positions in Dar es Salaam for both the Technical Institute itself and for the hostels. The design of the classrooms cum library block and all of the hostel has been completed, and a contract has just been made for the construction of the classroom block. This building is estimated to cost £65,000.

AFFORESTATION

*Scheme No. D. 3571*

|                                              | £       |
|----------------------------------------------|---------|
| Amount of grant ... ..                       | 168,000 |
| Total expenditure to 31.12.55 ... ..         | 11,246  |
| Amount of grant earned up to 31.12.55 ... .. | 9,714   |

The approved forestry policy of the Tanganyika Government provides that in addition to the increased work on regeneration, tending and improvement of natural forests, the Forest Department's total plantation acreage should be increased by 1962 to at least 40,000 acres of fuel, pole and timber plantations. This target will be a first step towards meeting the future needs of the territory, and is designed as the first part of a continuing programme of afforestation.

The Revised Development Plan for 1955/60 includes provision of £210,000 for expenditure to be incurred in carrying out the first steps of this programme, under which it is proposed in that period to establish 21 planting schemes; 11 for the production of timber and poles and 10 for the supply of fuel, so as to achieve by 1958/59 an annual plant of 4,400 acres, to be maintained if possible throughout the first rotation.



In the period under review approximately 480 acres of new plantations consisting of 365 acres of timber and 115 acres of fuel and poles have been made. In addition 5,000 acres of existing plantations have been tended, and routine fire protection measures undertaken. The Ukaguru area has been surveyed, demarcated, and the inhabitants compensated for the loss of their rights. Work has commenced on temporary housing and a store for the officer-in-charge of this project, and elsewhere on four quarters for subordinate field staff.

## APPENDIX II

### THE DEVELOPMENT BUDGET—STATEMENT OF EXPENDITURE

(Part II, III & IV of the Estimates)

| Details of Expenditure                                      | Total<br>Expenditure<br>to 31.12.53 | Actual<br>Expenditure<br>first six<br>months 1954 | Actual<br>Expenditure<br>1954/55 | Total<br>Expenditure<br>to 30.6.55 | Estimated<br>Expenditure<br>1955/56 |
|-------------------------------------------------------------|-------------------------------------|---------------------------------------------------|----------------------------------|------------------------------------|-------------------------------------|
| Conservation and Development of<br>Natural Resources ... .. | 2,549,580                           | 200,326                                           | 666,453                          | 3,416,359                          | 395,641                             |
| Development of Rural Water<br>Supplies ... ..               | 1,050,427                           | 67,512                                            | 294,253                          | 1,412,192                          | 606,615                             |
| Roads ... ..                                                | 6,112,838                           | 689,512                                           | 1,210,614                        | 8,012,964                          | 1,379,000                           |
| Aerodromes ... ..                                           | 870,541                             | 137,252                                           | 174,623                          | 1,182,416                          | 27,600                              |
| Social Services ... ..                                      | 1,615,618                           | 118,301                                           | 593,855                          | 2,327,774                          | 2,075,552                           |
| Township Development ... ..                                 | 1,940,496                           | 182,833                                           | 346,358                          | 2,469,687                          | 1,370,650                           |
| Public Buildings and Works ... ..                           | 3,928,360                           | 122,899                                           | 225,063                          | 4,276,322                          | 559,891                             |
| African Urban Housing ... ..                                | 453,525                             | 57,150                                            | 114,186                          | 624,861                            | 220,000                             |
| Miscellaneous ... ..                                        | 561,396                             | 25,000                                            | 32,591                           | 618,987                            | 33,000                              |
| <b>Total ...</b>                                            | <b>19,082,781</b>                   | <b>1,600,785</b>                                  | <b>3,657,996</b>                 | <b>24,341,562</b>                  | <b>6,667,949</b>                    |